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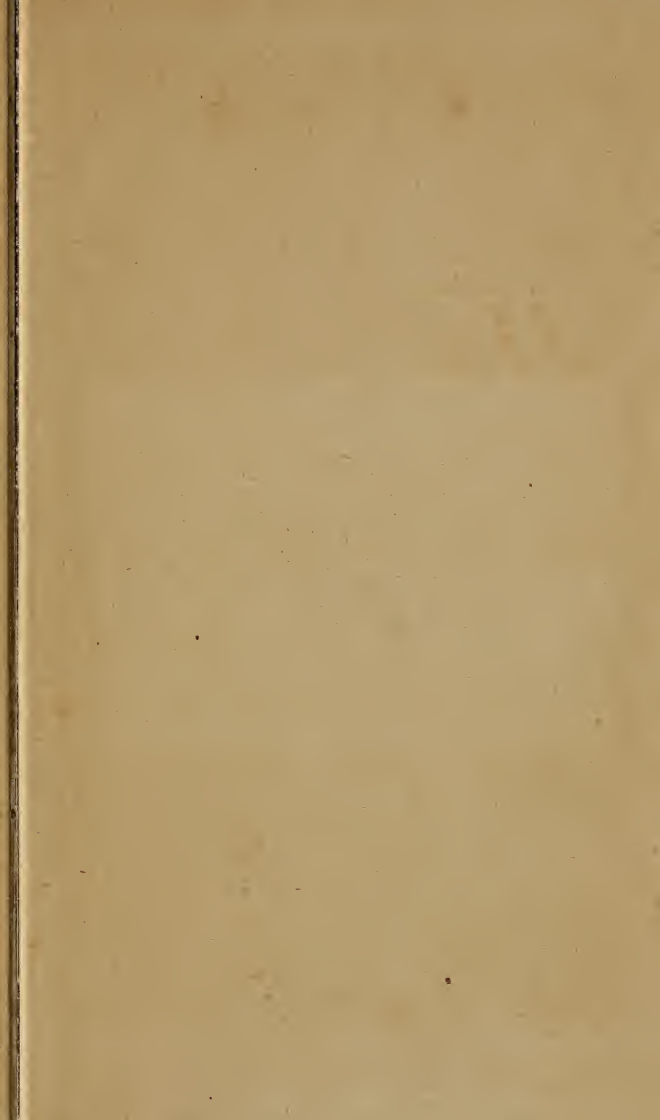
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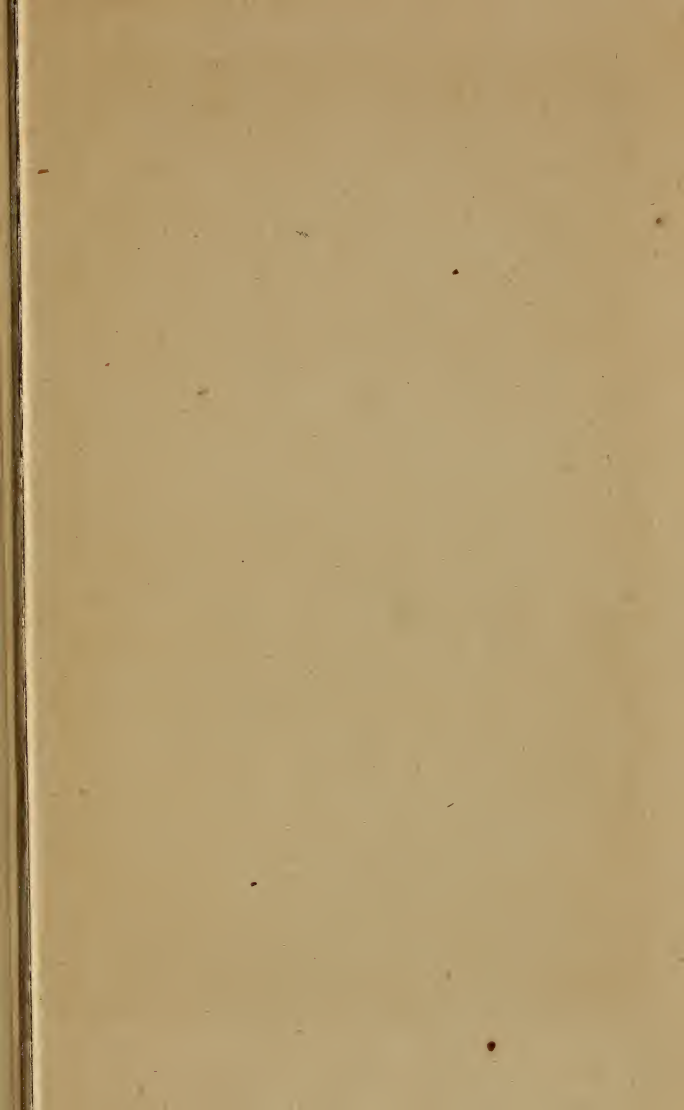
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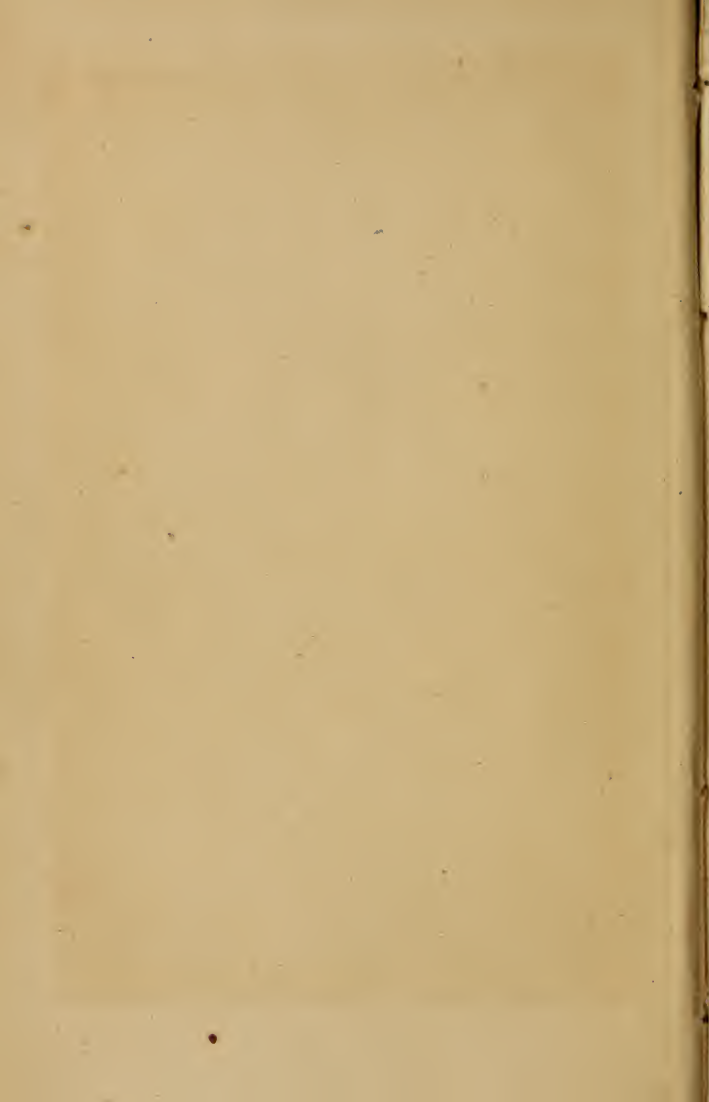
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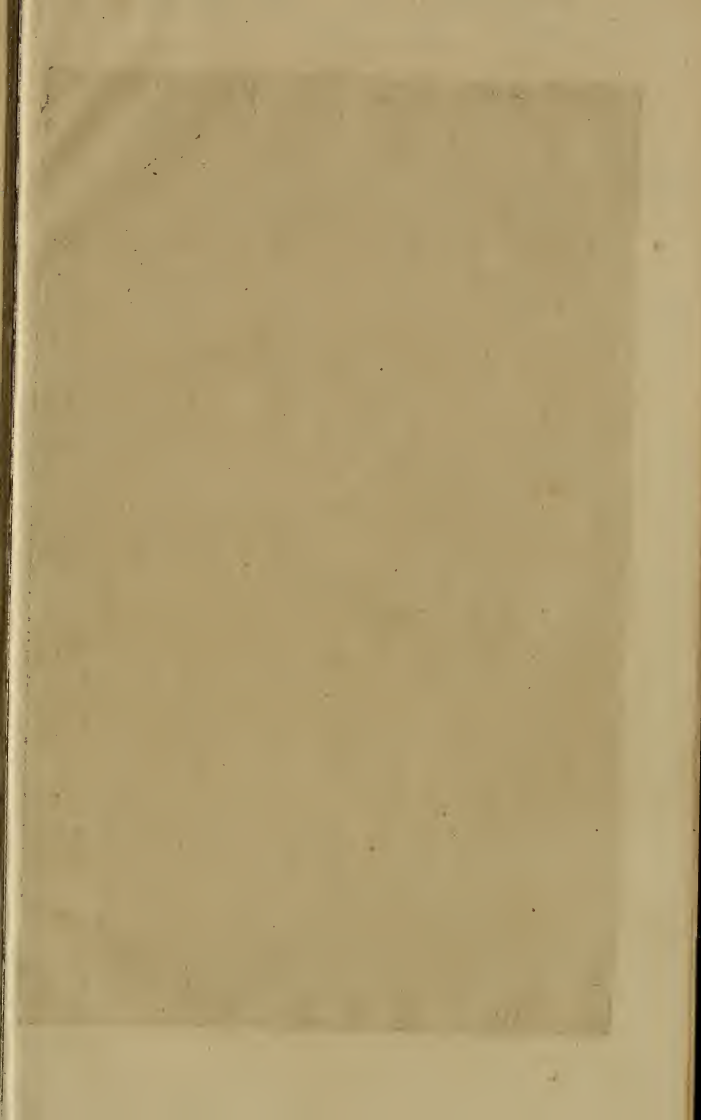
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EPITOME

See vol - 10. page 298
OF

PHRENOLOGY;

Marsh, Capen BEING & Lyon

AN OUTLINE OF THE SCIENCE

AS TAUGHT BY

GALL, SPURZHEIM AND COMBE:

TO ACCOMPANY

A CHART

DELINEATED ACCORDING TO THIS SYSTEM, OR THE

MARKED BUST

APPROVED BY DR SPURZHEIM.

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"Ex fronte, ex capite, ex vultu, etiam in ipso eris silentio, natura loquitur."—PLATO.

"It is so — I know it — but look for yourselves, and do not believe it because I say so."—SPURZHEIM.

Recd at Dept. of State
April 7th 1836. —
BOSTON:

MARSH, CAPEN & LYON.

1835.

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ADVERTISEMENT.

THE object of this Epitome is to give a condensed outline of Phrenology as inculcated by Dr SPURZHEIM, together with a brief description of the Skull and Brain. It is hoped that the chapters on the Temperaments, Combinations of Faculties, and Phrenological Expressions will add to the value of the work.

In the preparation of this work great care has been taken to avoid everything hypothetical, and at the same time to include concisely all the information that may be necessary for a student, without increasing the size of the volume so as to prevent its being a "Pocket Companion." With reference to this last object, it has been printed in a smaller form than would otherwise have been desirable. Those who wish to pursue the study further are referred to the large works of GALL, SPURZHEIM and COMBE, for Phrenology, and to those of SPURZHEIM, PAXTON, BELL and LIZARS, for Anatomy.

ERRATA.

The following errata escaped detection until too late for correction in their proper places;

Page	14,	line	17,	instead of	<i>Stoll</i> ,	read	<i>Stahl</i> .
"	17,	"	24,	"	<i>Chasse</i>	"	<i>Chaise</i> .
"	29,	"	3,	"	<i>they</i>	"	<i>children</i> .
"	42,	"	17,	"	<i>cineritions</i>	"	<i>cineritious</i> .
"	42,	"	19,	"	<i>distingui-ed</i>	"	<i>distinguished</i> .
"	58,	"	1,	"	<i>organ</i>	"	<i>organs</i> .

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EPITOME OF PHRENOLOGY.

CHAPTER I.

INTRODUCTION.

THE word PHRENOLOGY, derived from the Greek words $\Phi\eta\nu$ (*mind*), and $\Lambda\acute{o}\gamma\omicron\varsigma$ (*discourse* or *doctrine*), is used to designate that system of mental philosophy which treats of the special manifestations of mind, and of the corporeal conditions under which they take place: by teaching, that the mind is a plurality of faculties, all of which have special organs through which they are manifested; which organs constitute the brain, and are more or less developed in size, as they possess a greater or less power, and, therefore, vary the size and proportions of the head, in an infinite manner.

TO DR FRANCIS JOSEPH GALL, a physician of Vienna, is wholly due the praise of dis-

covering this system. He was born at Tiefenbrun, a short distance from Pforzheim, in Swabia, on the 9th of March, 1757, and was the sixth child of his parents, who were of high respectability, as may be inferred from the fact that his father held the highest office among his townsmen, that of Mayor of the village. Gall's parents being full believers in the Roman Catholic religion, intended him for the Church; this, however, did not suit his natural disposition, and he resolved to prepare himself for the practice of medicine. He pursued his preparatory studies at Baden, Brucksal, and Strasbourg. In 1781 he went to Vienna, and became a member of the school rendered so distinguished by the names of Van Swieten and Stoll.

From the earliest dawn of life, Gall was a contemplative observer. The peculiarities of disposition and talent, which existed among his brothers, sisters, and playmates, did not escape his scrutinizing mind. That some were remarkable for their success in mathematics, or for their beauty of penmanship; many for a talent of acquiring languages, while others excelled in music or poetry, were

facts soon discovered by the young philosopher, a proof of the adage,

“E minimis maxima.”

While yet a school boy, Gall discovered the organ of Language, by perceiving that those gifted with a good verbal memory had very prominent eyes. This discovery led him to others ; and, in a few years of patient observation, he was enabled to map out the cranium with organs. Although Gall spoke of organs on the skull, it would be injustice to believe, that he ever cherished an idea that the skull was the organ of the mind. No ; from the first he believed and taught that the brain constituted this assemblage of organs. Gall for some time followed the old systems of philosophy, but finding in them perplexities without end, and insurmountable difficulties, he abandoned every theory and preconceived opinion, and gave himself up entirely to the observation of nature. From this time his advances were more rapid, and, being physician to a Lunatic Asylum in Vienna, he availed himself of the opportunity of making observations on the insane. Prisons and schools were his frequent resorts ; and the

courts of Princes, colleges, and seats of justice were open to him. Nothing deterred him from visiting and examining such individuals as were famous for any extraordinary talent or deficiency. Such he studied with regard to external developement. Thus he came to the conclusion, that particular mental powers are indicated by particular configurations of the head.

It was at about this time that he began to study the brain more particularly. In 1796 he commenced lecturing at Vienna, which he continued to do until the 9th of July, 1802, when an order was issued by the Austrian Government, that forbad him, inasmuch as his doctrines were dangerous to the government and religion of Austria. This edict, however, was not a death blow to his doctrines; it rather excited the curiosity of many, and like every other similar persecution, added strength to the persecuted.

In the year 1800, DR JOHN GASPAR SPURZHEIM commenced his labors with Gall. This event gave great impulse to the study of the physiology and anatomy of the brain.

Dr Spurzheim was born at Longuich, a village near Treves, on the Moselle, on the 31st of December, 1776. He was educated at Treves, and, like Gall, was destined by his parents to become a clergyman. Nevertheless, in 1799 he went to Vienna, and there studied medicine and became acquainted with Dr Gall. Until 1804 he took no part in the lectures; after which time his character of hearer ceased, and he became associated with Dr Gall.

On the 6th of March, 1805, Gall and Spurzheim left Vienna to travel together, and pursue in common their researches into the anatomy and physiology of the whole nervous system. From this time until 1813, these two philosophers were constantly together, and their researches were conducted in common. During the years 1805, 1806, and 1807 they lectured in thirty-five places. In November, 1807, they arrived at Paris, in which city Gall afterwards remained until his death, which occurred August 23d, 1828. He lies buried in "Père la Chasse," near Paris, where a monument is erected to his memory.

In June, 1813, Spurzheim visited Vienna, and in March, 1814, England; after which time, he several times visited different parts of Great Britain. In 1832 he ventured to come to this country. His first visit was to Boston, where he delivered his last course of lectures. At Boston, on the 10th of November, 1832, he fell a martyr to his zeal for propagating the truths of his doctrines. His remains are deposited at Mount Auburn, under a beautiful marble monument.

It was often predicted that phrenology would die with its founders. This prediction has not taken place, but has verified the words of the Saviour as recorded by St John, viz: "Verily, verily, I say unto you, except a corn of wheat fall into the ground and die, it abideth alone: but if it die it bringeth forth much fruit."* Such was the effect produced by the death of Gall in Paris, and of Spurzheim in Boston. At both places societies were formed and kindled into existence by the last brightened flash of these expiring lights.

Many opposers of phrenology are loud in crying out against its immoral and danger-

* St John, xii. 24.

ous tendencies. For instance, they lay the charge of materialism to its doctrines, because it maintains that a *small portion* of the brain is the *instrument* of a faculty. What, therefore, must be said of the antiphrenologists, who believe that *all* of the brain is necessary to the manifestation of each faculty of the mind? This charge is founded alone in malice. Fatality, necessity, &c. are of the same class of objections, and equally false. Some who style themselves phrenologists may believe in these heterodox opinions, as well as other philosophers ; but the founders and the most distinguished living phrenologists are free from all such imputations. Phrenology is much oftener brought forward to disprove these, than maintain them, and full as often as any theory of metaphysics or dogma of theology. It must be evident that a work of this size and pretensions cannot give in detail all the arguments which are used to free phrenology from these imputations ; a candid investigation of the subject by each person, who takes the trouble to read these pages, is all that is asked.

Many ask what the objects and use of this

system are. Far from foretelling the actions of men, and judging the laws which have been formed by our Creator, phrenology aims only at explaining these laws, and rendering them of more practical utility. This it does by teaching the instructor the true system of education, and the legislator the way to form laws in accordance with nature ; by disposing the criminal justice to the exercise of mercy, and all to that of forbearance ; and lastly by giving us a knowledge of mankind, that by so becoming acquainted with the motives to action of individuals, we may escape many of the hidden shoals and quicksands, which often wreck our best hopes before we are aware of their proximity. Does not a system of philosophy, which offers such promises for the improvement of society, demand a respectful attention ?

The evidence on which phrenology rests demands a few pages of this work. The proposition that each mental faculty is endowed by nature with an organ by which it is made manifest, and that this is a portion of the brain, relates to physical and not metaphysical science, and therefore can be proved

or disproved only by observation. This belongs to the reason, and must be done by comparing the observed phenomena, discovering their relations, and drawing from them just conclusions; and not by determining beforehand whether the alleged appearances can or cannot exist compatibly with nature. Those, therefore, who attack the doctrines by mere verbal arguments, without facts made known by observation, only convert a subject simple in itself, to a complicated question. If the facts alleged by phrenologists really exist, all contradictory reasonings are defective in premises or unsound in deduction; but if they do not exist, then the whole fabric of the system must necessarily be crushed by its own weight, and without the assistance of other objections. Dr Gall's delicacy often forbade his bringing forward important evidence in support of his system. If, however, individuals will take into their hands a marked bust of the head, and a Manual of Phrenology, and will look at nature for their own satisfaction, by examining and comparing the heads of those whom they know to be differently constructed, they will be able to ascer-

tain whether or not the system be founded in truth. For instance, in their own private circles, if two children are known to differ, the one being rash, precipitate and courageous, while the other is very timid ; let these two heads be scrutinized in relation to the organs of Cautiousness. In this instance the difference of heads will be so striking, that the most inexperienced observer cannot fail of recognising it. By a selection for observation, of individuals well known to themselves, the inquirers will enjoy the means of estimating the real nature and extent of the talents and dispositions possessed, the actual appearance of the head, and the effects of health, education, temperaments, and a variety of circumstances, which they might have erroneously imagined were not attended to in the investigation of Phrenologists.

It is frequently stated that the believers and inculcators of these doctrines bring forward only such cases as support their doctrines, and omit all notice of adverse instances ; and that if they were candid, one set of facts would neutralize, contradict, or destroy another. These statements are wholly unfound-

ed, and the adverse facts are not brought forward by their opponents. These imputations imply so much disingenuousness and moral depravity that, if not supported by facts, they only merit contempt.

CHAPTER II.

PRINCIPLES.

PHRENOLOGY depends entirely upon the truth of three propositions, called *principles* :

1st. The brain is the organ of the mind ;

2d. The mind manifests a plurality of powers through as many organs ;

3d. The size of an organ, *cæteris paribus*, is the measure of the power of its faculty.

If these cannot be disproved by facts from nature, then must this be the true system of philosophy. The proofs of each principle are briefly mentioned in the succeeding sections.

SECTION I. — ORGAN OF THE MIND.

The *first* principle of phrenology is, that the brain is the material organ through which the mind is manifested. This is evident from the following facts :

1st. That there are no manifestations of the mental faculties, without the existence of a brain.

2d. That natural manifestations are imperfect in the same ratio that the brain is defective, which may be noticed in many individuals, who have been idiotic from birth.

3d. That if the brain is very large and in a healthy state, the mental powers are very energetically manifested.

4th. That as the brains of individuals increase or diminish, so also do the faculties of their minds in the same proportion.

5th. That the manifestations of mind always bear a relation to the perfection of the cerebral mass. In young children the brain is pulpy, and the mental powers are inferior, but as the former increases in perfection, the faculties appear ; in maturer years, they arrive at their greatest energy, and in old age,

when all the corporeal parts become feeble, the mind also participates in the general decay.

6th. That some faculties are more active in men than in women; some, more so in women than in men; and others strong in men or women, and feeble in children. These differences of manifestation coincide with the organization.

7th. That some faculties are transmitted from parents to children, and in such instances there is a hereditary cerebral organization.

And lastly, that if any of the organs in the brain be injured, the manifestation of the respective faculties are deranged or destroyed.

To this principle many objections have been made, none of which have the least degree of plausibility, and on that account are not mentioned here.

SECTION II. — PLURALITY OF THE FACULTIES AND THEIR ORGANS.

It is the *second* principle of phrenology, that the mind manifests a plurality of powers,

called *primitive faculties*, all of which have their proper instruments by which they are manifested, called *organs*.

That is a primitive faculty,*

1st. Which exists in one kind of animals, and not in another ;

2d. Which varies in the two sexes of the same species ;

3d. Which is not proportionate to the other faculties of the same individual ;

4th. Which does not manifest itself simultaneously with the other faculties ; that is, which appears and disappears earlier or later in life than other faculties ;

5th. Which may act or rest singly ;

6th. Which is propagated in a distinct manner from parents to children ; and

7th. Which may singly preserve its proper state of health and disease.

The mind must be a plurality of such faculties and the brain a congeries of organs, because,

1st. All the mental powers are not equally developed at the same time ;

* Spurzheim and Combe

2d. Different faculties are stronger in some individuals than in others ;

3d. In dreams some faculties are active while others are dormant, as may easily be demonstrated in the case of sleep walkers ;

4th. In monomania and partial idiocy, while some faculties are disordered or wanting, others are healthy and energetic ;

5th. Injuries to portions of the brain, while they effect some faculties, do not derange the whole.

Many philosophers who never believed the brain to be the organ of the mind, were nevertheless obliged to admit a plurality of faculties. Haller, the distinguished physiologist, " felt a necessity of assigning a distinct function to different parts of the brain."

SECTION III.—SIZE, OTHER THINGS BEING
EQUAL, A MEASURE OF POWER.

The *third* principle, that, when all other circumstances are the same, each faculty manifests a power corresponding to the size of its organ, is the one against which the shafts of the opponents of phrenology have been most generally directed. In all cases,

however, the condition, which requires all things to be equal, has been neglected or assailed by ridicule. Nevertheless, it is true, as every one may know by examining the subject with candor, either practically or analogically.

Some have maintained, that *absolute* size is a measure of power. This cannot be,

1st. Because the brains of some stupid animals exceed in size some of the most intelligent; the brains of asses and hogs are much larger than those of monkeys and dogs, yet no one will contend that the former have more powerful minds than the latter; and those of elephants and whales surpass in magnitude those of men :

2d. Because many men with active temperaments have more powerful minds, with small brains, than others, having large heads, with sluggish, and dull temperaments.

Others contend that *relative* size is that measure; or, in other words, that the larger the head, when compared with the whole body, the greater the power. If this be true, then many singing birds, and some species of monkeys must surpass men in mental power,

as must also children. The former cannot, because men possess parts in their cerebral organization that they do not; nor can the latter, because their brains are pulpy and less developed.

It will be necessary to remember that health, temperament, and exercise exert an influence on each organ, by increasing or modifying its power of manifestation.

CHAPTER III.

TEMPERAMENTS.

ONE of the most important considerations in forming an estimate of the mental powers by an examination of the form of the cerebral developements, is that of the temperaments. This is too often neglected by young phrenologists; and many, who oppose the doctrines of phrenology, do not give its supporters their due credit in making it essential to a correct predication of character. Its importance may be inferred from the fact that many men with

large heads, and consequently large brains, do not possess active minds, on account of their sluggish temperaments; whereas some with small brains and active temperaments, have very active minds.

The ancients, from the days of Hippocrates, admitted four temperaments, and explained them differently to make them coincide with their various theories of pathology. They associated with each some of the innate mental faculties; for instance, love and courage with the sanguine; want of firmness with the nervous, &c.

The moderns have, in popular language, retained the same epithets, and also inconsistencies, without being aware of their parentage, although they do not refer them to the same causes.

Although the importance of the temperaments is acknowledged by all physiologists, nevertheless they have been much neglected. no work that we possess gives a satisfactory explanation of them. Darwin, Cullen, Richerand, Brouissais, Thomas, and Caldwell have given them considerable consideration, and yet have left a wide field for future physiologists.

The temperaments may be defined as certain physical differences in men, depending upon the various proportions and relations among the parts, that make up their organization, and also upon the relative degree in the energy of several bodily organs.

Almost all authors admit *four*; the *Nervous*, the *Bilious*, the *Sanguine*, and the *Lymphatic*.

1st. The NERVOUS temperament is sometimes found pure, though oftener in combination with the others, and most often with the Bilious. It is the extreme sensibility to all external bodily impressions, or more properly the excess of this sensibility, that forms this temperament. It may be subdivided into two kinds, the phrenic and irritable. It may be seen in those persons who are extremely emaciated and whose flesh is very scanty and soft. People possessing it are generally called "*nervous*," and may generally be distinguished by their apparent uneasiness. It is very often acquired by an over excited brain, or even by the excitement of an organ; "The mind banquets and the body pines." Shakespeare has described Cassius as the very beau ideal of this temperament, when he says,

“Yond’ Cassius has a *lean and hungry look* ;
 He thinks too much. * * * * *

* * * * But I fear him not.

Yet if my name were liable to fear,
 I do not know the man I should avoid
 So soon as that *spare* Cassius.”

Some authors think that this temperament is the first stage of all nervous disorders ; and it has been said, that it only shows itself among those, who are the furthest removed from nature. As examples of this temperament are cited Voltaire, Montesquieu, and Frederick the Great.

2d. The BILIOUS, which disposes to the next greatest degree of activity, is known by the dark olive color of the skin, black hair and eyes, prominent veins, moderate fulness of flesh, marked muscles, and harshly expressed forms. As examples of this temperament may be adduced Alexander, Julius Cæsar, Brutus, Charles XII., Peter the Great, Cromwell, and Napoleon.

3d. The SANGUINE temperament gives the next degree of activity, and may be known by the ruddy complexion, animated countenance, good shape, distinct form, moderate

plumpness of flesh and fair chestnut colored hair. People having this temperament enjoy the best health, though their minds are not so active and susceptible as those possessing the Nervous or Bilious.

4th. The LYMPHATIC temperament disposes to very little mental and bodily exercise, and is not marked with much energy of character. It may be easily detected by the whiteness and softness of the skin, and great bulk and plumpness of the whole body. The hair is light, the cheeks rounded, and the face without expression. Languor and slothfulness of mind and body, are identified with this temperament. Michael Montaigne is quoted as one possessing this temperament.

Such are the temperaments, as generally described, but it is very rare to meet with any individual, who can unhesitatingly be referred to either, on account of the innumerable shades of combination. They are all susceptible of modifications by climate, education, &c. A man of the strongest sanguine temperament may be easily made to assume the nervous; and one possessing either, may, by slothful indulgence, convert them into the

lymphatic. He, however, possesses the best, who, with the greatest share of the nervous, has likewise a fair proportion of the bilious and sanguine to strengthen and sustain him.

CHAPTER IV.

ANATOMY OF THE SKULL AND BRAIN.

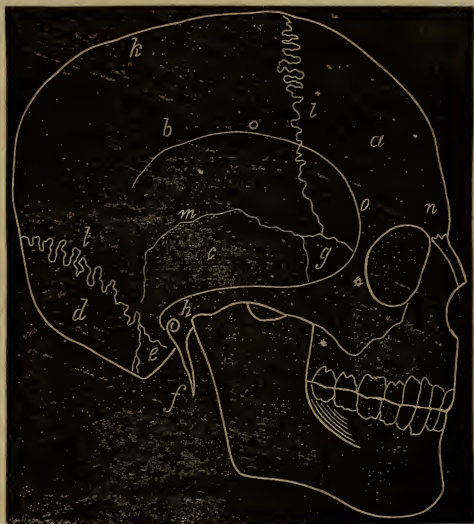
To aid the student of phrenology, it has been thought advisable to give a brief description of the skull and brain, and of the membranes which cover the brain and separate its hemispheres.

SECTION 1. — OF THE SKULL.

The first impression which one receives on looking at the skull is, that it is a single object; but on closer examination he will perceive certain irregular lines, traversing it in various directions like seams, called *sutures*, which are the boundaries and dove-tailed union of several distinct bones. Pursuing his investigation farther, he will find several pro-

jections, which are pointed and slim, obtuse, or merely prominent; these are *processes*, to which muscles are attached.

FIG. II. — SKULL.



Anatomists, in their descriptions of the skull, generally divide it into the *Cranium* and *Face*, which are subdivided into many bones. The latter of these does not contain

the brain, and on that account will not be noticed here.

The cranium consists of eight bones : one *Frontal* (*a*, Fig. 2) ; two *Parietal* (*b*) ; two *Temporal* (*c*) ; one *Occipital* (*d*) ; one *Sphenoidal* (*e*) ; and one *Ethmoidal*.

EXPLANATION TO FIGURES II. AND III.

Figure II. represents the side view, and Figure III. the top view of the skull.

a, the Frontal bone ;

b, one of the Parietal bones ;

c, one of the Temporal bones ;

d, the Occipital bone ;

e, the Mastoid process of the temporal bone, which is often mistaken by tyros for the developement of an organ ;

f, the Styloid process of the same ;

g, a portion of the Sphenoidal bone ;

h, the orifice of the ear ;

i, the Coronal suture ;

k, the Sagittal suture ;

l, the Lambdoidal suture ;

m, the Squamous suture ;

n, the situation of the Frontal sinuses ;

o o, the Temporal ridge, to which is attached the temporal muscle, which fills the cavity at the temples ; and

p p, Triquetral bones, which often occur isolated in the Lambdoidal suture.

These bones consist of two hard plates, called the internal and external tables of the skull; and of a cellular substance interposed, called diploë. In cases of violence from without, the outer plate yields and by pressing the cellular diploë within, often prevents serious injuries to the delicate texture of the inclosed organ. Some parts of these bones are destitute of this cellular substance, while others have it more abundantly.

The cranium of an adult is of sufficiently uniform thickness, measuring about three sixteenths of an inch. In some cases, where particular faculties have become impaired, the skull bone situated over their organs, becomes thickened; this is very observable in cases of those who, though born with all their faculties, have become partially idiotic.

The bones of the cranium undergo changes before they arrive to a state of perfection, and, even after that period, their shape is capable of being changed. They adapt themselves* to the brain and its enveloping membranes, as may be seen from the furrows

* Cuvier, Monro and others state this fact.

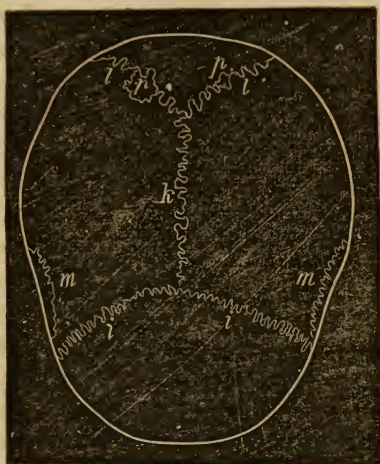
which have been left in their inner plates for the lodgement of arteries. In the course of a short period of years every particle of their substance is gradually absorbed and carried away, and other ossific matter is generated to supply the place of that removed. In the earliest stages of existence they consist of cartilage or gristle, and at a proper time, from points called centres of ossification, send out spiculæ of bone, which in due time compose the matured bones of the cranium. These points, particularly in the frontal and parietal bones, exhibit themselves during life in the form of prominences.

A minute description of each bone cannot be expected in a work of this size; nevertheless it is important that the frontal sinuses, which occupy the anterior portion of the frontal bone should be described. These are situated immediately above the ridges of the eyebrows. Their size is very variable, and constantly changing in the same individual. In youth they are seldom perceptible; whereas, in adult age, their formation commences, and in old age they often measure an inch in depth. They communicate with the

nose, and often with each other, and are formed by a separation of the tables of the skull. The generally received opinion among Phrenologists respecting their formation is this: the portion of brain behind the inner plate, becoming less active, diminishes in size, and the inner plate, which is moulded upon it, follows it, while the outer plate, by the hindrance of the ethmoidal and maxillary bones, remains stationary. Behind or below them lie the organs of Individuality, Form, Size, Weight, Locality, and sometimes Language. As a general rule, we may infer, that a person having very large sinuses, will be sure to have a large developement of the brain behind them; and one deficient in this respect will be certain to have the reverse developement of brain.

A good idea of the sutures can be gained by the preceding and following engravings. Their use is evident, being contrived by Infinite wisdom and benevolence; for in case of accidents to the skull, they prevent the extension of a fracture from one bone to another.

FIGURE III.—SUTURES.



[For a description of this figure see page 36.]

SECTION II. — OF THE BRAIN.

By the **BRAIN** is generally meant that nervous mass, which fills the cavity of the cranium, and which receives and transmits to the understanding external impressions, governs muscular motion, and serves as a medium for the manifestation of the affective and intellectual faculties.

Gall and Spurzheim taught that the first

general principle of the nervous system is, "that it is not an unit, but consists of many essentially different parts, which have their own individual origins, and are mutual in communication ;" thereby denying, that the brain is the origin of the nerves, or the nerves of it. In proof of this, they showed that the cord sometimes exists without ever having been connected with the brain, and that the latter has existed without the former.

The brain, is in general, regular and symmetrical. It does not always bear the same proportion to the body, but differs at every age, and in both sexes ; for at birth its weight forms the sixth or seventh part of the body, while at adult age it is about the thirty-fifth part only. The same may be said of the parts of which it is composed ; for the cerebellum, in infancy, is the seventeenth or eighteenth part of the whole brain, and, in the adult, the eighth or ninth. In the adult, it usually weighs about three pounds, although it occasionally exceeds this weight by several ounces.

Its substance is soft, pulpy, and in part fibrous, and its consistency varies according

to the age ; at birth it being almost fluid, incapable of manifesting much energy, but growing firmer as age increases. It is tenacious to the touch, inodorous, and destitute of sensibility. Sir Charles Bell, in noticing this last fact, remarks, that from this alone he should be led to think, that it has a higher function, and is more nearly allied to the intellectual operations, than other matter. It is furnished with arteries for its nourishment, and with veins to convey the unused principles of the blood back to the heart, through the sinuses and jugular veins.

The brain is composed of two substances, different in texture and generally in color, viz : the *pulpy*, called inaccurately cineritious,* and sometimes cortical, which serves as an envelope to its internal parts, and is distinguished in parts about its interior ; and the *white*, improperly called medullary† substance, which constitutes its interior. Gall and Spurzheim did not affirm the use of the

* Wrongly so called, because in children it is somewhat reddish, and is often found pale and almost colorless.

† It is not medullary, but white and fibrous.

pulpy substance ; yet from its peculiar distribution and from analogy, it appeared to them to be the source or nourisher of the white fibres. The same anatomists demonstrated that the white substance is fibrous. They supposed that each nervous apparatus is composed of these two substances, and “that both are necessary to produce an instrument adequate to the performance of a particular function.” They demonstrated “that the cerebrum and cerebellum are themselves only developements of bundles coming from the medulla oblongata, to which are annexed other masses of white fibres proceeding from the pulpy layer, which envelops the hemispheres.” These substances in certain places are seen forming eminences, cavities, partitions, &c. which are always similar in healthy individuals.

In the lower species of animated beings, we behold a very imperfectly organized brain, but as animals ascend towards man in the mental scale, so do their brains become more complicated in structure and organization.

The brain is invested with *three* membranes ; the *Dura mater*, which belongs to it

in common with the cranium, more properly to the latter, supplying the place of the periosteum to its internal surface); the *Arachnoid membrane*; and the *Pia mater*.

1st. The Dura mater, which incloses the brain, consists of a very dense membrane. It adheres everywhere to the surface of the cranium. Several membranous processes go off from the dura mater, which partly divide the cavity of the cranium and separate the parts of the brain from each other, viz: the falx, which divides the cerebrum into two hemispheres, and between the layers of which at the upper edge is situated the longitudinal sinuses;* and the tentorium, which lies between the cerebrum and cerebellum, and at the edges of which are the great lateral sinuses.*

The subjoined engraving with its explanation gives an accurate idea of these parts.

* The portions of the marked bust which are crossed correspond with these sinuses.

FIGURE IV.—PROCESSES AND SINUSES OF THE DURA MATER.

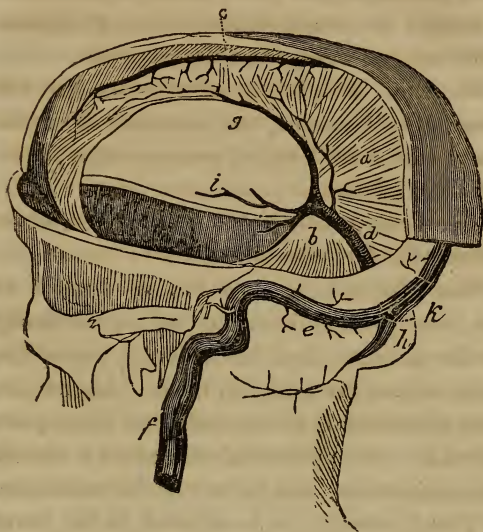


Figure IV. represents a lateral view of the processes of the dura mater and sinuses.

- a.* the falx ;
- b.* the tentorium ;
- c.* the superior longitudinal sinus ;
- d.* the straight sinus ;
- e.* one of the lateral sinuses ;
- f.* one of the jugular veins ;
- g.* the inferior longitudinal sinus ;
- h.* the occipital sinus ;
- i.* a vein ; and
- k.* the place of union of the sinuses.

2d. The Pia mater is a thin transparent web, containing the blood-vessels of the brain. It invests the whole brain, covering its convolutions and lining its anfractuositities.

3d. The Arachnoid membrane lies between the other two, and is constantly moistened with a fluid which prevents injury arising from friction.

The brain consists of the *Cerebrum*, *Cerebellum* and *Medulla oblongata*.

The MEDULLA OBLONGATA is situated at the lower part of the brain, within the cavity of the cranium, and immediately above the large hole of the occipital bone. Anatomists have described it as consisting of three pairs of bodies : the pyramidal eminences ; the olivary eminences ; and the restiform eminences.

The CEREBELLUM is situated in the lower and posterior part of the cavity of the cranium, lying upon the lower portion of the occipital bone, and beneath the tentorium. It is divided into two lobes by a fold of the dura mater.

The CEREBRUM occupies the cavity of the cranium above the tentorium. Its superior surface is convex, corresponding in shape to

the bones of the cranium, which, according to Cuvier, Monro, and all other eminent anatomists, are formed upon it. In the median line of its upper surface, there is a deep fissure occupied by the falx, which divides it into two hemispheres. These hemispheres are each divided into three lobes. This division into lobes is arbitrary, there being no apparent natural separations. The surface of each lobe is formed of several eminences, having an undulating form, which are generally half an inch in breadth, called *convolutions*. Those of the anterior lobes are much smaller than those of the middle and posterior lobes, as are also the fibres of which they are composed. They are found bearing, very constantly, the same relations as to their direction and general form, although their size is not always the same; sometimes, however, as in cases of idiocy, some are wanting. They are separated from each other by deep depressions, called *anfractuositities*.

The convolutions consist internally of white fibres, whose extremities are covered with the grayish pulpy substance. Spurz-

heim, in his demonstrations, used to show that a part of these fibres proceeded in a diverging manner from the medulla oblongata; those from the pyramids, after decussating,* passing to the front lobes; and the others to the remaining lobes and cerebellum. These he called *diverging fibres*, to distinguish them from others which run *convergently* to the great commissure. It was his opinion that a hemisphere might appear entirely smooth (i. e. without convolutions,) and still contain the same elementary parts as one of ordinary appearance. In defence of this he showed that the convolutions could be unfolded, without destroying any of the nervous fibres, so as to present an uniform and even surface.

These parts are shown by figure V.

* This decussation takes place in the following manner: — the fibres coming from one side pass directly between those coming from the other, and take their places. By this means the fibres of the right hemisphere of the brain are connected with the nerves of the left side of the body, and *vice versa*. Hence arises the curious and otherwise unaccountable phenomenon, that paralysis of the right or left side of the body is consequent to an injury on the reverse hemisphere of the brain.

- d*, the commissure of the cerebellum ;
- f*, the cerebellum ;
- h, h*, the pyramidal eminences of the medulla oblongata ;
- i, i*, the olivary eminences ;
- c, n*, processes of the cerebrum ;
- e, g*, processes of the cerebellum ;
- 1, olfactory nerves ;
- 2, 2, optic nerves ;
- 8, auditory nerves ;

The remaining figures indicate the other nine of those nerves generally called cerebral.

CHAPTER V.

ESTABLISHED POINTS.

THE following points have been established by incontestable proofs :

1st. That the mind exhibits a plurality of faculties ;

2d. That the brain is the material organ through which these faculties are manifested ;

3d. That the brain is divided into two hemispheres, each of which has many convolutions ;

4th. That these convolutions are the extremities of the organs of distinct faculties ;

5th. That these organs extend from the top of the spinal marrow to the surface of the brain and cerebellum ;

6th. That each organ is double, one part being in one hemisphere and another in the other ;

7th. That the phenomena produced by each organ are single.

8th. That each faculty manifests a power corresponding with the size of its organ, *cæteris paribus* ;

9th. That the same organ has different modes of activity ; and

10th. That health, temperament and exercise exert an influence on the power of each organ.

CHAPTER VI.

NATURAL LANGUAGE OF THE FACULTIES.

EACH of the primitive mental powers has a peculiar manner of expressing itself when

active, which is called its *natural language*. It was from a knowledge of this effect of the faculties that led Lavater and his predecessors Adamantius, Aristotle, Porta, Fludd and others, to form their theories and compose their treatises on Physiognomy. The knowledge of the natural language, which is the foundation of pantomime, and which gives expression to the productions of the painter and sculptor, is all that renders Physiognomy worthy of being noticed. Lavater and his followers stated, that there exists an apparent correspondence or analogy between the countenance and the mind ; the features and lineaments of the one being directed by the emotions of the other ; and that there is a peculiar disposition of the countenance, to each particular faculty of the mind. Thus far they were right ; but when they proceeded so far as to refer different dispositions to the natural form, size and color of the several features, they led themselves into error, and made their art empirical. No faculty is always sufficiently active to show its characteristic expression at all times ; nor is this expression entirely dependent upon the fea-

tures of the face. The whole body is brought into action for this purpose, as may be remembered in the case of Roscius. Who has not noticed the soft voice and pleasing smile of those who desire to be praised, the harsh voice of the bravado, the toss of the haughty girl's head, the sober look of the devotee, and the peculiar look of the cunning man's eye? These are the languages of some faculties.* Dr Spurzheim was of opinion that the natural external expression of every faculty is as determinate as the special faculty itself; and thought that the natural language of the faculties would point out the location of the organs of those faculties. It was an idea of his that the

* Solomon said, "A haughty person, a wicked man walketh with a froward mouth. He winketh with his eyes, he speaketh with his feet, he teacheth with his fingers." It is said in Ecclesiasticus "that the heart of a man changes his countenance, whether it be for good or evil; and a merry heart makes a cheerful countenance." "The envious man has a wicked eye, he turns away his face and despises men." "A man may be known by his look, and one that has understanding by his countenance, when thou meetest him," &c.

motions are always in the direction of the part of the head, which is the situation of the organs of the faculties by which they are produced. He always expressed a wish that the principle might be tested farther than he had done ; and although he believed that it was true, he did not state it as an undisputed or a settled point.

There are some principles respecting the natural language which may be considered general.

1st. As soon as any faculty of the mind is active, all the bodily parts which contribute to the performance of the respective function enter into action ;

2d. If any internal faculty be active, and somewhat energetic, though no function is produced, yet the external expressions take place conformably ;

3d. The external expressions are stronger or weaker according to the activity of the faculties ; and they are modified in different nations, individuals, temperaments and ages ; but the essential is everywhere the same ;

4th. The motions and attitude of the body are modified according to the seats of the organs.

The natural language of the faculties will be mentioned in the description of the mental powers.

CHAPTER VII.

PRACTICAL DIRECTIONS.

BEFORE inferring a person's character from his cerebral developement, strict attention must be given to the following points ; viz.

1st. The physical state of the individual, (i. e.) his idiosyncracies, and combination of temperaments ;

2d. The moral education and advantages he has had ;

3d. The whole size of the brain generally ;

4th. The head as divided into Anterior and Posterior regions ;

5th. The head as divided into the Superior and Inferior or Basilar regions ;

6th. The head as divided into the Frontal, Occipital, Sincipital and two Lateral regions ;

7th. The developement of the individual organs ; and,

8th. The combinations of these organs.

In doing this, we must be cautious and deliberate, not advancing one step before we are perfectly satisfied respecting the preceding. Much depends upon proper allowance being made for the first two considerations. By the third, as size, *cæteris paribus*, is a measure of power, we see whether the brain of the individual will admit of manifestations of ordinary vigor ; for if it be too small, idiocy is the consequence. By the 4th, 5th, and 6th, we see what are the predominant features of the faculties ; by the 7th, the power of the individual faculties ; and, by the 8th, the general tendencies ; and by a proper consideration of all, the general character of the individual.

It is very necessary that we should distinguish between *power* and *activity*. Power is dependent on size and gives energy, but not activity ; this latter depends upon temperament. That such a distinction exists in physics is demonstrable. For instance, the balance wheel of a watch moves with great rapidity, nevertheless its power is so small

that it can be stopped by a hair ; whereas the piston of a steam engine moves very slow, yet with prodigious power. The same distinction is observable in muscular action. The nimble grayhound moves with the greatest agility but with so little force, that the slightest obstacle arrests his progress ; while the clumsy elephant moves slowly along, with a power that fifty grayhounds cannot impede. By a little attention in our observations, we behold the same principle in mental manifestations. Michael Montaigne possessed a powerful and inactive mind ; Mrs Siddons, Mr J. Kemble, and Miss Fanny Kemble had the reverse. When in any organ great power and great activity combine the faculty is the most powerfully manifested.

Care must also be taken not to mistake several long processes for organs ; such as the mastoid process behind the ears, the cheek bones, and the protuberance at the back of the head. The situation of the longitudinal and lateral sinuses must not be disregarded.

It must be remembered also, that size may consist in length or breadth, or in both. Dr

Spurzheim said that the length of the organ disposes to frequent action, whilst their thickness gives more intensity. "Phrenologists," said he, "attend too little to the latter dimension and too much to the elongation of the organ." The length of an organ implies length of the fibres which compose it, and is ascertained by taking the distance from the middle of a line passing through the orifices of the ears to its exterior. For this purpose an instrument, called craniometer, is used. Often, however, the measurements are taken from the external orifice of the ear by callipers. The following is a table of the measurements generally taken :

From ear to ear.

- " destructiveness to destructiveness.
- " cautiousness to cautiousness.
- " constructiveness to constructiveness.
- " ideality to ideality.
- " ear to individuality,
- " ear to occipital protuberance.
- " ear to benevolence.
- " ear to veneration.
- " ear to firmness.
- " inhabitiveness to comparison.
- " mastoid process to mastoid process

Dr Spurzheim recommended beginners to study the separate organs with reference to four grades of developement, viz. predominant, large, moderate and small. The Edinburgh phrenologists use a more minute scale of gradations, viz.

- | | |
|------------------|------------------|
| 1. | 11. |
| 2. idiocy. | 12. rather full. |
| 3. | 13. |
| 4. very small. | 14. full. |
| 5. | 15. |
| 6. small. | 16. rather large |
| 7. | 17. |
| 8. rather small. | 18. large. |
| 9. | 19. |
| 10. moderate. | 20. very large. |

This last scale may be used by those capable of distinguishing very small differences in size, but for general use it is unnecessarily minute.

CHAPTER VIII.

DIVISION OF THE FACULTIES, AND NOMEN-
CLATURE.

EACH species of feeling and thinking is called by phrenologists a faculty; and the natural apparatus through which any faculty is manifested, is called its organ. As the philosophers of the old school have never agreed with each other in the division, number and names of the mental faculties, so have the phrenologists never been able to agree with them. The first grand division of many philosophers, was into instinct in animals, and understanding and will in men; they subdivided the understanding into attention, memory, judgment and imagination, and the will into inclination, desire, propensity and passion. Gall and Spurzheim did not acquiesce in this division; they taught, that the instinct of animals and the propensities in men are the same; and that attention, memory, judgment, imagination, inclination, desire and passion of the old writers, are not fundamental powers but different modes of activity of all, or some of the mental faculties.

Spurzheim, seeing the incorrectness of the old division, divided the mental powers into *two orders*; 1st, the *feelings* or *affective faculties*, and 2d, the *intellectual faculties*; he then subdivided both orders into several *genera*, and each genus into its several *species*.

As no faculty should be named from its action, — since actions are the result of a combination of faculties, and often proceed from abuse, — he endeavored to correct the erroneous nomenclature of his predecessor, Dr Gall, and gave names, — some of which he was obliged to invent, — to each power independently of any action or application. The classification has been adopted by all writers on Phrenology, though some have differed from Spurzheim in the names of some of the organs. Some arrange the organs as he did in 1825, among these is Deville, publisher of the London bust, and Combe, author of the Edinburgh cast. The arrangement which Spurzheim used in the latter part of his lecturing, and which he has embodied into the last edition of his work is used here, because it shows evidence of having been formed philosophically and naturally.

According to Spurzheim the faculties are ;

ORDER I.—FEELINGS OR AFFECTIVE FACULTIES.

GENUS I.—PROPENSITIES.

- | | |
|-------------------------|---------------------|
| † Vitativeness. | 5 Inhabitiveness. |
| * Alimentiveness. | 6 Combativeness. |
| 1 Destructiveness. | 7 Secretiveness. |
| 2 Amativeness. | 8 Acquisitiveness. |
| 3 Philoprogenitiveness. | 9 Constructiveness. |
| 4 Adhesiveness. | |

GENUS II.—SENTIMENTS.

1. *Inferior sentiments common to man and the lower animals.*

- | | |
|-------------------|-----------------|
| 10 Cautiousness. | 12 Self Esteem. |
| 11 Approbateness. | |

2. *Superior sentiment common to man and the lower animals.*

- 13 Benevolence.

3. *Superior sentiments proper to man.*

- | | |
|-----------------------|--------------------|
| 14 Reverence. | 18 Marvellousness. |
| 15 Firmness. | 19 Ideality. |
| 16 Conscientiousness. | 20 Mirthfulness. |
| 17 Hope. | 21 Imitation. |

ORDER II.—INTELLECTUAL FACULTIES.

GENUS I.—EXTERNAL SENSES.

- | | |
|-------------------|----------|
| Voluntary motion. | Smell. |
| Feeling. | Hearing. |
| Taste. | Sight. |

GENUS II.—PERCEPTIVE FACULTIES.

1. *Intellectual faculties, which perceive the existence of external objects and their physical qualities.*

- | | |
|-------------------|---------------------------|
| 22 Individuality. | 25 Weight and resistance. |
| 23 Configuration. | 26 Coloring. |
| 24 Size. | |

2. *Intellectual faculties, which perceive the relations of external objects.*

- | | |
|-----------------|-------------------------|
| 27 Locality. | 31 Time. |
| 28 Order. | 32 Tune. |
| 29 Calculation. | 33 Artificial language. |
| 30 Eventuality. | |

GENUS III.—REFLECTIVE FACULTIES.

- | | |
|----------------|---------------|
| 34 Comparison. | 35 Causality. |
|----------------|---------------|

CHAPTER IX.

REGIONS.

THE organs of the mental faculties are so situated in different portions of the brain, those of the intellectual faculties in one part, those of the sentiments in another, and those of the propensities in a third, that, by dividing the head or skull into parts by imaginary lines, we

are able to see by a glance of the eye, which of these predominate.

Several modes are given, for doing this. Three only will be here described, which on account of their individual importance, should not be neglected.

1st. The whole head should be divided into two portions, by drawing a line from the orifice of the ear to that point on the skull which is pliable in the heads of infants. The portion before this line is called the *anterior*, and that behind it, the *posterior* region of the head.

2d. The next mode is by dividing the whole head into two other regions, by a line running from the frontal protuberances (at the upper line of the forehead) to the superior angle of the occipital bone. From their situation, these are called the *superior*, and *inferior* or *basilar* regions. The head should be examined by these, before we resort to the third method, which is this :

3d. Let a line be drawn from the anterior edge of the organ of Constructiveness at the temple upwards to the temporal ridge, thence to pass to the middle line of the forehead, leaving the frontal protuberance anterior to it.

This line will consequently terminate between the organs of Benevolence and Comparison, leaving before it the frontal lobes of the brain, in which are situated the organs of the Reflective and Perceptive faculties. This portion is called the *Frontal* or intellectual region.—Second, let another line be drawn from the mastoid process of the temporal bone (the hard prominence behind the ear) to pass directly through the parietal protuberance (organ of Cautiousness,) to the sagittal suture or median line of the head. This line will certainly terminate between the organs of Self-esteem and Firmness, and leave behind it the posterior lobes of the brain, and the cerebellum, in which are placed the inferior sentiments and most of the propensities. This is the *Occipital* region ; — Lastly, let a third line be drawn from the point where the first described line intersected the temporal ridge, to pass along this ridge* until it ter-

* The prominences, ridge and suture referred to, can be distinctly felt on the living head, and be seen on almost every skull. If the temporal muscle be made to contract several times forcibly, much assistance will be given in finding the ridge, when it is otherwise obscure.

minates in the second described line immediately above the parietal protuberance. This line, when drawn on both sides, divides the remaining portion of the head into three regions, the *Sincipital* above, containing the organs of the Superior sentiments; and the *two Lateral* below, containing the middle lobes of the brain, which are devoted to the use of the remaining propensities.

The sincipital is often called the *moral*, and the occipital and two lateral united, the *animal* regions.

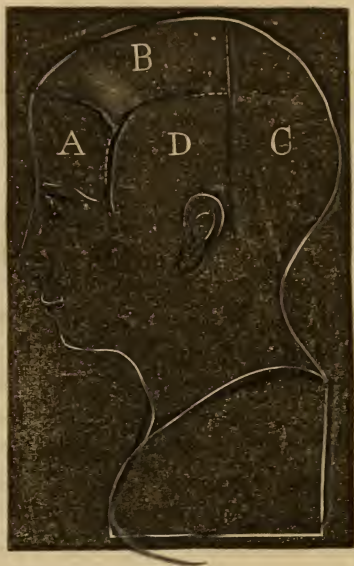
Of these regions the occipital is unfortunately the most largely developed; and on this circumstance greatly depends the general and excessive energy of man's animal nature. The greater developement of the lateral over the sincipital region conduces likewise to the same result; in the majority of individuals the head will be found more broad than high. The superior portion of the occipital region is deserving of particular attention on account of its influence over the other regions, by stimulating them and influencing them to maintain their energy. In combination with large frontal and sincipital regions, it strength-

ens the intellectual and moral capacities ; but when united to a greatly developed basilar region, it increases the vigor of the animal propensities.

The intellectual region, lying in the forehead, is often the cause of errors in judgment ; for a forehead containing a large developement of the reflective faculties and a larger of the perceptive, is often, on account of its retreating aspect, considered shallow.

Another error, which too often arises through ignorance is this :—a head, having a high sincipital region, a broad lateral, with a small frontal, is thought, on front view, (on account of its height and breadth,) to have a large developement of the frontal or intellectual region, whereas it has one very defective. Instances of this description are of so frequent occurrence, that great care must be taken not to fall into mistakes. The error can be easily rectified by regarding the head profilewise, and measuring the distance from the ear forward, thereby taking account of the length as well as breadth of the brain.

FIGURE VI.—REGIONS.



In this engraving,
A. represents the Frontal region ;
B, the Sincipital ;
C, the Occipital ; and
D, the Lateral.

CHAPTER X.

ORDER I. — AFFECTIVE FACULTIES, OR FEELINGS.

THESE have their origin from within, and are taught only by sympathy. They are blind in themselves, and are partly common to man and the lower animals, and partly proper to man.

SECTION I.—GENUS I.—PROPENSITIES.

This genus consists of several species, all of which exist in man and in other animals, and do not form ideas.

†.—VITATIVENESS.

Speaking of this propensity, Dr Spurzheim remarks; — “It is highly probable that there is a peculiar instinct to live, and I look for its organ at the basis of the brain, where the middle and posterior lobes of the brain meet each other at the internal border of Combativeness.”

*.—ALIMENTIVENESS.

It has been much disputed, whether the

stomach or part of the brain be the organ of this propensity. Phrenologists believe that the desire or instinct is manifested by the brain, but that hunger has its seat in the stomach. Many people will eat long after the cravings of the stomach have been satisfied, and others will only eat enough to satisfy this craving. The old proverb which says, "many live to eat, but few eat to live," shows that the idea is not new. This faculty exists in all animals, whether carnivorous or herbivorous.

Its use is to preserve the individual. Its abuse leads to intemperance in eating and drinking. When its organ is inactive, want of appetite ensues.

The organ is situated at the anterior part of the temples behind Constructiveness, and before Destructiveness.

I.—DESTRUCTIVENESS.

This organ is situated immediately above the opening of the ear, so that its development corresponds with the squamous portion of the temporal bone. It was discovered by Dr Gall, after an attentive examination of the

skulls of carnivorous and herbivorous animals, and of murderers.

This faculty, like all others, is good in itself, when properly employed, but when abused has very bad tendencies.

“Passions, like elements, though born to fight,
Yet mix'd and soften'd, in his work unite ;
These 'tis enough to temper and employ ;
But what composes man, can man destroy.”

POPE.

It produces an impulse and desire to destroy in general. Its most appropriate use is for self-defence, by destroying things and animals, that are noxious, or whose death is necessary for the maintenance of life. Its abuse prompts to murder, rage, cruelty, malevolence, ferocity, and general destruction and devastation, whether of animate or inanimate things. The inactivity of its organ disposes to an unwillingness to destroy, and an incapacity of seeing animals killed, and to a want of energy of character. Its natural language is expressed by a harsh and ill-natured tone of the voice. It is very essential to satire, as may be seen in the following quotation :

“ But first as he flew, I forgot to say
That he hover'd a moment upon his way
To look upon Leipsic plain ;
And so sweet to his eye was its sulphury glare,
And so soft to his ear was the cry of despair,
That he perched on a mountain of slain ;
And he gazed with delight from its growing height,
Nor often on earth had he seen such a sight,
Nor his work done half so well :
For the field was so red with the blood of the dead,
That it blushed like the waves of hell !
Then loudly, and wildly, and long laughed he :
' Methinks they have here little need of me.' ”

BYRON.

It is often recognised in the writings of the best descriptive poets, as for instance, in the description of Bruce avenging on Cormac Doil the death of Allan.

“ Not so awoke the king ! his hand
Snatched from the flame a knotted brand,
The nearest weapon of his wrath,
With this he crossed the murderer's path,
And venged young Allan well !
The spattered brain and bubbling blood
Hissed on the half extinguished wood ;
The miscreant gasped and fell.”—SCOTT.

The organ is very conspicuous in the heads of cool and deliberate murderers, and

in those who delight in cruelty, and are notorious for vehement swearing. Its existence and location is proved beyond doubt.

The organ is large in the casts* of Caribs and small in those of Hindoos.

II.—AMATIVENESS.

The propensity to physical love is manifested by means of the cerebellum, which lies beneath the ridge passing from the mastoid process to the occipital protuberance at the back part of the head. When the organ is large, the neck appears very full. The abuse of this faculty leads to crime and dissipation in its most loathsome form, immodesty and indecency in words and actions. Its natural language is expressed by a peculiar look of the eye called ogling. Coleman says :

“ Love has a swifter messenger than speech,
To tell Love’s meaning. His expressions post
Upon the orbs of vision, ere the tongue
Can shape them into words.”

* Casts mentioned in this work can be had upon application to any of the dealers in phrenological works, or the artists.

Byron expresses the same in one line :

“ Soft eyes looked love to eyes which spoke again.

The organ is large in Mary Macinnes,
and small in Dr Hett of Vienna.

III.—PHILOPROGENITIVENESS.

This feeling shows itself in the love which mothers have for their youngest children. It is beautifully illustrated by Byron.

“ Where were then the joys,
The mother’s joys of watching, nourishing,
And loving him? Soft he wakes. Sweet Enoch!
Oh Cain! look on him; see how full of life,
Of strength, of bloom, of beauty, and of joy.

* * * *

Look! how he laughs and stretches out his arms,
And opens wide his blue eyes upon thine,
To hail his father; while his little form
Flutters as wing’d with joy. Talk not of pain!
The childless cherubs well might envy thee
The pleasures of a parent! Bless him, Cain!
As yet he has no words to answer thee, but
His heart will, and thine own too.”

Females generally possess it in a greater degree than men. That men are not desti-

tute of it may be inferred from Byron's apostrophe to his daughter.

“To aid thy mind's developement,—to watch
Thy dawn of little joys,—to sit and see
Almost thy very growth,—to view thee catch
Knowledge of objects,—wonders yet to thee !
To hold thee lightly on a gentle knee,
And print on thy soft cheek a parent's kiss,—
This, it should seem, was not reserved for me ;
Yet *this was in my nature* : as it is,
I known not what is there, yet *something like to this*.”

The girl expresses it by the caresses she bestows upon her doll. It is manifested by cold blooded murderers and ferocious animals, and is not therefore, the same as Benevolence. Men often possess it in such a feeble state of energy, that the greatest punishment with which they could be inflicted would be to have to take charge of children. It was largely possessed by Byron and Scott, and is very perceptible in their poetry. The following beautiful passage is inspired with it in combination with Adhesiveness and Reverence.

“Some feelings are to mortals given,
With less of earth in them than heaven :

And if there be a human tear
From passion's dross refined and clear,
A tear so limpid and so meek,
It would not stain an angel's cheek,
'Tis that which pious fathers shed
Upon a duteous daughter's head !
And as the Douglass to his breast,
His darling Ellen closely pressed,
Such holy drops her tresses steeped,
Though 'twas a hero's eye that weeped."—SCOTT.

Its use is to promote feelings to love and cherish offspring; and to show a peculiar attention to the old, infirm and helpless. When excessive, it spoils children by indulgence, and causes their loss to be felt too much. If feebly possessed it leads to the neglect of children, and makes the care of them a burthen. The natural language of this faculty is shown by an expression of pleasure and tenderness, whenever its objects are present or incidentally mentioned.

The organ is situated in the posterior lobes of the brain; and its developement occupies all of the occipital bone above the transverse ridge and occipital protuberance. It is very large in Hindoos, and very small in Peruvians.

IV.—ADHESIVENESS.

Friendship, society and marriage are the result of this feeling. It is strong in females and often in the most abandoned criminals. Generally speaking, recluses possess but a very little of this charming species of affection. To those who possess it strong, the very thought of being alone gives pain ;

*“ Adah. Alone I could not
Nor would be happy : but with these around us,
I think I could be so despite of death,
Which, as I know it not, I dread not, though
It seems an awful shadow — if I may
Judge from what I have heard.*

*Lucifer. And thou couldst not
Alone, thou say’st, be happy ?*

*Adah. Alone ! oh, my God !
Who could be happy and alone, or good ?
To me my solitude seems sin ; unless
When I think how soon I shall see my brother,
His brother, and our children, and our parents.*

*Lucifer. Yet my God is alone ; and is he happy,
Lovely and good ?*

*Adah. He is not so ; he hath
The angels and the mortals to make happy,
And thus becomes so in diffusing joy :
What else can joy be but the spreading joy ?”*

BYRON.

George Combe in his valuable work, quotes the following stanza from Moore, to show what style of verse it inspires :

“ The heart, like a tendril accustomed to cling,
Let it grow where it will, cannot flourish alone ;
But will lean to the nearest and loveliest thing,
It can twine with itself, and make closely its own.”

Its use inclines to friendship, society, marriage, and the formation of social and friendly societies. Its abuses are shown in the formation of clubs or gangs for improper purposes ; and in attachment to worthless and vicious people. When its organ is inactive, little regard is had for the society or attachment of others. The natural language is expressed by the warm and familiar shake of the hand, and by the pleasant appearance of the countenance.

The organ is situated between Cautiousness and Philoprogenitiveness. Large in Gen. Wurmser, small in Madelaine Albert, and Brazil Indians.

V.—INHABITIVENESS.

According to Dr Spurzheim, this faculty determines animals in the selection of their

places of abode. Some are always found on the top of mountains, while others haunt the plains and low countries. There are several Indian tribes that have never been known to wander about; and there are others that never adhere long to the same place. Many people cannot be separated from the land of their birth even after all their friends and other associations are removed; and yet others, without any pain, can emigrate to far distant countries without the slightest prospect of ever again beholding their native land. These considerations prompted Spurzheim to give the faculty the name of Inhabitiveness; they likewise prove that it is a special faculty, and innate.

Were it not for this faculty, the song of "Home, sweet home" would not have the influence it now exerts. It was one of Sir Walter Scott's strongest faculties and inspired these stanzas in his "Lay of the Last Minstrel":

"Breathes there the man, with soul so dead,
Who never to himself hath said,
This is my own, my native land!

Whose heart hath ne'er within him burn'd,
 As home his footsteps he hath turned,
 From wandering on a foreign strand !

* * * *

O Caledonia ! stern and wild,
 Meet nurse for a poetic child !
 Land of brown heath and shaggy wood,
 Land of the mountain and the flood,
 Land of my sires ! what mortal hand
 Can e'er untie the filial band
 That knits me to thy rugged strand !
 Still, as I view each well-known scene,
 Think what is now, and what hath been,
 Seems as, to me, of all bereft,
 Sole friends, thy woods and streams were left ;
 And thus I love them better still,
 Even in extremity of ill.
 By Yarrow's streams still let me stray,
 Though none should guide my feeble way ;
 Still feel the breeze down Ettrick break,
 Although it chill my withered cheek ;
 Still lay my head by Teviot stone,
 Though there, forgotten and alone,
 The Bard may draw his parting groan."

Mr George Combe, of Edinburgh, has extended the limits given by Spurzheim to this propensity; and, calling it Concentrativeness, says, "that its function is to maintain two or more powers in simultaneous and combined activity, so that they may be direct-

ed towards one object." Mr J. Deville of London, has, in his extensive collection of phrenological specimens, several casts, which contradict the opinion of Combe and favor that of Spurzheim.

When used properly it gives a desire of keeping in any particular place, such as the place of birth, education, and where youth has been spent. The abuse produces too great love of home, and consequently pain and unwillingness to leave it; and also nostalgia or home-sickness. Its deficiency has a contrary effect.

The organ is situated immediately above that of philoprogenitiveness, at the lower part of the crown of the head, under the posterior fontanel. It is large in Scott and small in North American Indians.

VI.—COMBATIVENESS.

This faculty inspires with courage, and, when very active, with the propensity to attack. It is by itself a blind impulse, delighting in opposition for its own sake, and in a restless spirit of contention, having no end or object. But when under the direction of

higher powers, it imparts boldness and force to the character. It makes some men arguers and always take the opposite side of every opinion,

“And e'en tho' vanquished, they can argue still.”

Some, even after they have converted you to their opinions, will take the side you have given up as wrong, and, as the poet says,

“Confute, change sides, and still confute.”

Of such a character, “my father” in *Tristram Shandy* is an admirable delineation. The following extract is a beautiful illustration of this faculty combined with Benevolence.

“If,” says Uncle Toby, “when I was a school-boy, I could not hear a drum beat but my heart beat with it, was it my fault? Did I plant the propensity there? Did I sound the alarm within, or nature? Did any one of you shed more tears for Hector? And when King Priam came to the camp to beg his body, and returned weeping back to Troy without it,—you know, brother, I could not eat my dinner. Did that bespeak me cruel? Or,

because, brother Shandy, my blood flowed out into the camp, and my heart panted for war, was it a proof that it could not ache for the distress of war too?"

When properly used, this faculty gives courage to defend, meet danger and overcome difficulties. But if abused, it leads to anger, attacks, love of contention and disputation. Its organ in a state of inactivity leads to cowardice, timidity and unreasonable fears.

The natural language is shown by the rigid features; elevated and drawn back head; fighting posture; angry and bold intonation of the voice; and, if the person is profane, by oath after oath thrown out in a bravado style.

The organ is located in the posterior lobes of the brain, between Destructiveness and Philoprogenitiveness, and shows its development upon the posterior inferior angle of the parietal bone. It is large in Wurmser and Henry Joseph, (the murderer of Captain Crosby); and small in the timid female and Hindoos.

VII.—SECRETIVENESS.

Some people have a great desire to conceal all their thoughts, words and actions; and others will whisper into your ear a few words, that every one might know, and beg of you not to divulge their secrets. Such have the faculty under consideration, very strong. This faculty does not determine the object nor manner of concealing; and there is no end to the ways in which it acts. Shakspeare, the great poet of nature, shows it everywhere in his writings.* It is indispensable to good acting, and is thus alluded to in Hamlet:

“Is it not monstrous, that this player here,
But in a fiction, in a dream of passion,
Could force his soul so to his own conceit,
That from her workings all his visage wanned;
Tears in his eyes, distraction in 's aspect,
A broken voice, and his whole function suiting
With forms to his conceit?—and all for nothing!
For Hecuba!—
What's Hecuba to him, or he to Hecuba,
That he should weep for her?”

It is possessed by the greatest villains, as

* King John, Act iii. Scene 3.

“*K. John.* I had a thing to say, but let it go,” &c.

in the case of the Duke of Gloster,* who says :

“ Why, I can smile, and murder while I smile ;
And cry, content, to that which grieves my heart ;
And wet my cheeks with artificial tears,
And frame my face to all occasions.”

It is this faculty which predominates in successful politicians. When active and combined with much acquisitiveness, it will, if abused, probably lead to theft. It was in this combination, that it was discovered by Gall, who called its organ, that of theft. In the same combination, but used properly, it prompts naturalists, antiquarians, &c., to make large and useful collections.

Its use is to retain ideas until they have passed under the cognizance of the reflective faculties ; and it gives expression to the productions of artists, poets, actors, &c. When abused and badly combined with other faculties, it leads to hypocrisy, lying, intrigue, equivocation, cunning, dissimulation and de-

* Shakspeare has made secretiveness the most prominent feature in Richard's character ; it is excessively active in combination with Nos. 1, 6, 11, and 21.

ceit of every description. When deficient it betrays what should be kept secret, for the good of ourselves and others, and allows us to be deceived or duped by the craftiness, address, or falsehood of others.

The natural language of this faculty is a shy expression of the eyes, directing them in a leering or oblique direction ; lightness of step ; a carrying of the head low and between the shoulders. Scott lends the following beautiful illustration :

“ For evil seemed that old man’s eye
Dark and designing, fierce yet shy,
Still he avoided forward look,
But slow and circumspectly took
A circling never ceasing glance,
By doubt and cunning marked at once ;
Which shot a mischief-boding ray,
From under eyebrows shagged and gray.”

The organ is situated immediately above that of Destructiveness, and its developement is shown on the lower part of the parietal bone, at the squamous suture. It is large in Boutillier, and small in Brazil Indians.

VIII.—ACQUISITIVENESS.

This faculty exists both in man and the lower animals. It prompts to acquire without determining the object to be acquired nor the manner of getting; and never loses sight of self. Its main spring is usefulness; and it always prompts the questions, in any undertaking, "What is the use of it?" and "What is to be gained?" By making provision for the future, it is necessary to man and animals. It often leads one to collect and hoard up what can never be of use. Its use is to produce the desire to possess, and a tendency to accumulate articles of utility, and to provide against want. Its abuses are, selfishness, avarice, usury, fraud, theft, and corruptibility and its consequences. When defective, one is led to neglect his own interest, and be unmindful of his affairs. The natural language is shown by a longing, dissatisfied expression of the countenance; and in some, by a beggarly appearance.

The organ is situated in the middle lobe of the brain, and is shown developed on the anterior angle of the parietal bone, above

that of Secretiveness, between those of Ideality and Cautiousness, and below the temporal ridge which separates it from those of Conscientiousness and Hope. It is large in the Calmuc, and small in the Brazil Indians.

IX.—CONSTRUCTIVENESS.

Man, from the rudest times, has always shown a propensity to construct, so likewise have some of the lower animals, as the beaver and musk-rat. Although this faculty prompts us to construct, others are required to tell us what and how. Many men may be able to execute the most difficult works ; but, without the faculties of Ideality, Configuration, Size, Coloring and Weight, they will not equal the productions of a Raphael, Titian, Da Vinci, or an Angelo. In other respects this faculty is blind, and is as necessary to the cobbler, as it is to the painter, engraver, sculptor, and any other artist.

Its use is to build whatever may be for our accommodation and for the conveniences and support of life. Abused, it prompts to counterfeit, or make articles for the injury of others and for dishonest purposes. Its defi

ciency is shown by a want of "handiness." Where active, its natural language is displayed by examining whatever is taken hold of, to see how it is made, and by looks expressive of curiosity, when regarding machinery.

The organ is located anteriorly to that of Acquisitiveness. Its developement may be looked for on the frontal bone, where it is articulated with the parietal and sphenoidal bones. The situation varies a little, according to the size of the zygomatic arch, and the peculiar form of the base of the cranium. If the cavity above the arch be not great, and if the part of the skull, under which the organ is seated, be more prominent than the external angular process of the eye, the organ may be considered as largely developed. In narrow heads it lies a little higher than it does in broad ones.

Over this organ is placed the temporal muscle, and on this account we cannot judge of its true size without feeling it through the flesh. In making the examination, it will be well to direct, that the jaw be opened and shut firmly, several times that we may judge

better of the thickness of the muscle. The developement is shown large in the casts of the milliner of Vienna, Canova, and Karner Vaider ; and small in New Hollanders.

SECTION II.—GENUS II.—SENTIMENTS.

These consist of a specific emotion together with a propensity. Some are common to man and the lower animals, and are therefore called Inferior ; others, called Superior, are proper to man.

1.—*Inferior sentiments common to man and the lower animals.*

X.—CAUTIOUSNESS.

Many individuals are naturally timid, fearful, irresolute and cautious ; and we even find whole nations who are remarkable for their circumspection, carefulness and wariness. Phrenologists assert that in these, the portion of the brain, lying under the protuberance of the parietal bone, is much more developed, than in those who differ from them in these essential points of character. Dr Gall said, “ that man and animals were necessarily endowed with a faculty which

should induce them to look forward to coming events and avoid danger. Without such a disposition, they would have been incapable of taking any measure for the future." This faculty is therefore fundamental, and acts blindly though it may excite the reflective faculties. When properly used, it incites us to take precautions; it is an ingredient in prudence, and always exclaims "take care," "look out," &c. Its abuses are excessive timidity, fearfulness, uncertainty, anxiety, despondency, irresolution, melancholy and hypochondria. When the faculty is defective there is a predisposition to levity and foolhardiness.

The natural language is manifested by an inquisitive, piercing eye; by the frequent and gentle turning of the head; and by slowness and softness of step.

The organ of this sentiment is situated in the brain above those of Combativeness, Secretiveness and Destructiveness, immediately under the parietal protuberance. Therefore, on the head and skull we look for its developement at the protuberance which is generally so distinct on the sides of the head. The organ may be observed large in the casts

of the timid female, Dr Hett, mummies and Hindoos; and small in that of General Wurms-
ser. It is very much larger in females than
in males.

XI.—LOVE OF APPROBATION.

This sentiment, the existence of which no one can doubt, makes us attentive to the opinion which others entertain of us. It produces emulation among children, love of glory, fame and distinction, vanity and the love of praise. It is that which incites a person to politeness and agreeableness, and which gives to society its polish and refinements. It is found more active in women, who are often insane from it, than in men. Used properly, it is the origin of a desire of the esteem of others, which is the chief inducement to politeness and civility, and which likewise renders its subjects obliging to others. Its abuse tends to vain glory, ambition, vanity, excessive love of dress, titles and petty distinctions. A deficiency of it results in indifference to the opinions of others, and a culpable neglect of dress and civility. The natural language is shown by French gestures.

The organ of this sentiment is situated in the upper part of the posterior portion of the brain. On the head and skull we can see its developement by looking at that part just above the organs of Adhesiveness and Inhabitativeness, and between those of Cautiousness and Self-esteem.

Large in Dr Hett, the milliner of Vienna, and North American Indians, François Cordonnier and Voltaire; and small in D. Haggart.

XII.—SELF ESTEEM.

This faculty inspires with the sentiment of self-love and self-esteem, and like all other faculties was destined to produce good effects. One possessing a due endowment of it, will have that degree of self-satisfaction which will lead the mind to an enjoyment of life, and also a confidence, which is very useful in every situation. This sentiment gives a dignity and nobleness of mind to its possessor.

“He sits ’mongst men, like a descended god :
He hath a kind of honor sets him off,
More than a mortal seeming.”—SHAKESPEARE.

“Inferior talents,” says Combe, “combined with a strong endowment of Self-Esteem, are often crowned with far higher success, than more splendid abilities joined with this sentiment in a feeble degree.” It often produces abuses when possessed in an inordinate degree, such as pettishness in children and arrogance in older persons. Spurzheim’s observations led him to believe that it was possessed by animals, for instance, such as the turkey-cock, peacock and horse. The proper use of this faculty is to produce self-respect, personal interest, and love of independence. Its abuses are pride, disdain, self-conceit, love of power, excessive selfishness, haughtiness, arrogance and insolence. When feebly possessed it results in humility. Its natural language is shown by a proud demeanor and stern aspect. The man with much of this faculty

“Lifts his proud head to the sky,
And seeks the broad blaze of the day.”

The organ is developed on the median line of the head immediately above that of Inhabitiveness, at the part where the hair

turns, called the crown. It is largely developed in Martin, and is small in Dr Hett of Vienna.

2.—*Superior sentiment common to man and the lower animals.*

The superior sentiments elevate mankind from the mere brute creation, and establish what is called a moral character. One of these alone pertains to brutes in common with man.

XIII.—BENEVOLENCE.

This sentiment predisposes to disinterested kindness towards our fellow beings, desiring their happiness. It gives mildness, cheerfulness and charity in its widest sense to its possessor. Cartwright has thus described a person under its influence :

“ His heart no selfish cares confined,
He felt for all that feel distress ;
And still benevolent and kind,
He blessed them, or he wished to bless.”

This is the only superior sentiment which exists among animals. To them, as in the roe

and sheep, in some dogs, horses and monkeys, it gives a natural meekness and good-naturedness. Among men it restrains the propensities and directs them into their proper sphere of action. It is often associated in activity with other faculties; as for instance, with Destructiveness, as in the following often admired stanzas :

“ Inhuman man ! curse on thy barb’rous art,
And blasted be thy murder-aiming eye ;
May never pity soothe thee with a sigh,
Nor ever pleasure glad thy cruel heart !

Go live, poor wanderer of the wood and field,
The bitter little that of life remains :
No more the thickening brakes and verdant plains
To thee shall home, or food, or pastime yield.

Seek, mangled wretch, some place of wonted rest,
No more thy rest, but now thy dying bed !
The sheltering rushes whistling o’er thy head,
The cold earth with thy bloody bosom prest.

Oft as by winding Nith, I, musing, wait
The sober eve, or hail the cheerful dawn,
I’ll miss thee sporting o’er the dewy lawn,
And curse the ruffian’s aim, and mourn thy hopeless
fate.”

BURNS.

The use of this faculty is to give rise to

disinterested benevolence, mildness of disposition and sympathy for the unfortunate. Its abuse leads to prodigality, profusion and indulgence to the unworthy. When deficient, selfishness and disregard of the feelings of others, is the result. The natural language is a pleasing, tranquil expression, and a soothing and compassionate tone of the voice,

“ As gentle
As zephyrs, blowing below the violet.”

The developement of the organ is noticed on the upper and middle part of the frontal bone, between the forehead and fontanel. It gives height to that portion of the forehead which is covered by the hair. It is large in Dr Hett, and small in Caribs and Martin.

3.—*Superior sentiments proper to man.*

These faculties are situated together in the sincipital region, and form the distinguishing features between man and the lower animals. On these depend man's moral and religious character. They produce emotions or feelings.

XIV.—REVERENCE.

'This is the origin of respectfulness, reverence and veneration. The faculty does not select its object nor manner of revering, but is blind in itself. It enters equally into the mental character of the Christian, Jew, Mahommedan and Pagan, and is thus beautifully recognised existing naturally in the Indian :

“Lo ! the poor Indian whose untutored mind
Sees God in clouds, or hears him in the wind.”

This feeling gives rise to emotions of respect towards those who are superior in rank, talents, property and power, and is essential to lovers of relics, and antiquaries. Its combined action with Conscientiousness produces the happiest results :

“'Tis this, my friend, that streaks our morning
bright ;
'Tis this, that gilds the horror of our night.
When wealth forsakes us, and when friends are few,
When friends are faithless, or when foes pursue ;
'Tis this that wards the blow, or stills the smart,
Disarms affliction, or repels the dart,
Within the breast bids purest raptures rise,
Bids smiling conscience spread her cloudless skies.”

When properly used it gives a tendency to respect what is venerable, to worship, adore and respect whatever is great, good, or ancient, and to true religion and filial piety. When abused, its results are idolatry, bigotry, senseless respect for objects unworthily consecrated by time or religious association, love of primitive customs, abject subserviency to persons of wealth or in high stations. A deficiency is accompanied with irreverence, too great desire for innovations, and religious scepticism. The natural language is manifested by a downcast eye and supplicating voice, and by general humility.

The organ of this faculty is situated under that portion of the skull that is soft in young children, a little anterior to the middle of the upper part of the head. It is large in the Devotee, and small in Dr Hett.

XV.—FIRMNESS.

From the activity of the organ of this faculty results determination, fixedness of purpose and perseverance. Moral courage, in contradistinction to physical courage, is the prompting of this faculty. When over

active it produces stubbornness and obstinacy. The aim of this faculty is firmness and steadiness of purpose. Its abuse leads to obstinacy, infatuation and tenacity in evil. The inactivity of its organ predisposes to inconstancy, fickleness, and changeableness. Its natural language is shown by a fixed, forcible and emphatic manner of the gait, a corresponding tone of voice, and a firm closing of the jaws.

The organ of this faculty is developed in the middle of the upper and posterior part of the sincipital region of the head. If a line be drawn from the mastoid process behind the ear through Cautiousness to the vertex of the head, it will strike this organ. It is large in Martin, and small in Gibson.

XVI.—CONSCIENTIOUSNESS.

Without determining what is or is not just, Conscientiousness produces the love of truth, duty, justice and moral rectitude. Although it desires to be just, yet as its combination with the affective and intellectual faculties is, so is its determination of what is just. For instance, if it exists in an individual with

very powerful lower propensities, he will call that just, which another, possessing it with a large endowment of Benevolence and the reflective faculties, would call unjust. One with the latter combination is always just for the love of justice ;

“ His words are bonds, his oaths are oracles ;
His love sincere, his thoughts immaculate ;
His tears, pure messengers sent from his heart ;
His heart, as far from guile, as heaven from earth.”

SHAKESPEARE.

Remorse and repentance are sometimes its results, and clearly show that it may be possessed by the most atrocious villain. Its uses may be thus summed up ; justice, conscientiousness, duty, respect for the rights of others, openness to conviction and love of truth. Its abuses are, remorse for innocent actions, adherence to noxious principles when ignorantly embraced, and excessive refinement in the views of duty and obligation. Its deficiency predisposes to forgetfulness of duty.

The organ of this sentiment lies between those of Cautiousness and Firmness, and immediately in front of that of Approbative-

ness. It is large in Dr Hett, and small in the widow Lecouffe.

XVII.—HOPE.

On this sentiment depends the belief of being able to acquire what other faculties desire. With Ideality it builds castles in the air; with Acquisitiveness, it prompts speculation, whether by gambling or trading. When associated with Reverence it prompts to a belief in a future existence:

“Lo! the poor Indian whose untutored mind
Sees God in clouds, or hears him in the wind:
His soul proud science never taught to stray
Far as the solar walk or milky way;
Yet *simple nature* to his *hope* has given,
Behind some cloud-topt hill, an humbler heaven;
Some safer world, in depth of woods embraced;
Some happier island in the watery waste;
Where slaves once more their native land behold,
No fiends torment, no Christians thirst for gold.”

POPE.

When too active, it leads to credulity. Its use is to look forward with confidence and faith. Its abuses are absurd expectations, and love of scheming. When deficient, there is a predisposition to despair, despondency and distrust.

The organ lies on each side and a little anterior of that of Firmness, and directly before that of Conscientiousness on both sides of the head. It is large in Gen. Wurmser, and small in Dr Hett.

XVIII.—MARVELLOUSNESS.

It is this faculty which induces man to admire and believe in supernatural agents and events. In religion it aids by giving a disposition to credit miracles. All religious systems have a mystic origin. Pope speaking of this feeling thus personifies it :

“ She midst the lightning’s blaze, and thunder’s sound,
When rocked the mountains, and when groaned the
ground,

She taught the meek to bend, the proud to pray,
To power unseen, and mightier far than they :
She from the rending earth and bursting skies,
Saw Gods descend, and fiends infernal rise :
Here fixed the dreadful, there the blest abodes.”

Dealing in fiction and romance, it gives to the productions of some authors a wonderful interest, as for instance the Waverley Novels, Robinson Crusoe, and Arabian Nights Entertainments. Its use is to aid in the belief of religion, and desire of novelty. Its abuse

gives origin to the belief in inspirations, phantoms, presentiments, dreams, ghosts, demons, astrology, fortune-telling, magic and sorcery. When deficient, incredulity in oral traditions occurs, and the possessor is an "every day" being.

The organ is situated in front of those of Hope, on each side of that of Reverence, and above those of Ideality. It is large in Tasso, and Sir W. Scott, and small in Boutilier.

XIX.—IDEALITY.

It is this primitive faculty that makes enthusiasts, gives warmth to the language, and fires with rapture and exultation.

"Bright-eyed fancy hovering o'er,
Scatters from her pictured urn,
Thoughts that breathe, and words that burn."

This sentiment will not allow us to look at things as they are; but paints with enthusiasm everything in its most glowing colors. Of the idealist, says Rogers,

"Do what he will, he cannot realize
Half he conceives — the glorious vision flies.
Go where he may, he cannot hope to find
'The truth, the beauty, pictured in his mind.'"

It is this that makes us aspire after perfection, and constantly endeavor for the sublime. It is a necessary ingredient in the make of a poet, and gives excellence to his productions, by exaggerating and converting truth to imaginary existence, as is thus written in its very fervor :

“Now fancy sees th’ ideal canvass stretch’d,
And o’er the lines that Truth has dimly sketch’d,
Dashes with hurried hand the shapes that fly
Hurtled along before the frenzied eye.
The scudding cloud that drives along the coast,
Becomes the drapery of a warrior’s ghost,
Who sails serenely in his gloomy pall,
O’er Morven’s woods and Tura’s mouldering wall,
To join the feast of shells in Odin’s misty hall.”

AIRS OF PALESTINE.

The maniac possesses it with as much vigor as the sanest person. The intellectual faculties perceive things as nature formed them, but Ideality desires something more exquisitely lovely and sublime, and will not rest satisfied with the scenes of reality. Every object which it conceives is elevated and endowed with splendid excellence. Nature cannot make such an object as it forms. This sen-

imental faculty makes its possessor rather an inhabitant of the enchanted regions than one fit to dwell in the abodes of man. The successful poet, painter, sculptor, inventor, and in fine, all who would cultivate the fine arts or excel in them, must possess it.

The use of this faculty is to aim at perfection, and give origin to the poetic feeling; its abuse leads to eccentricity, extravagance and absurd enthusiasm. A deficiency of it leaves the mind without a desire of excellence, and love of the splendid and beautiful. Its natural language is beautifully illustrated by Pierpont in his "Airs of Palestine":

"Seest thou that shepherd boy, of features fair,
Of eye serene, and brightly flowing hair,
That leans, in thoughtful posture, on his crook,
And statue-like pores o'er the pebbly brook?
Yes: and why stands he there, in stupor cold?
Why not pursue those wanderers from his fold?
Or mid the playful children of his flocks,
Toss his light limbs, and shake his amber locks,
Rather than idly gaze upon the stream?
That boy is lost in a poetic dream:
And while his eye follows the wave along,
His soul expatiates in the realm of song."

The organ is seen developed at the upper and lateral part of the forehead on the frontal bone below the temporal ridge. This situation is often metaphorically called the "poets' corner." It is large in Von Weber, Voltaire and François Cordonnier, and small in Boutillier.

XX.—MIRTHFULNESS.

In the same manner as the preceeding faculty disposes to exalt, mirthfulness gives a disposition to view things in a humorous light.

Associated with the higher powers this sentiment predisposes to wit ; with Constructiveness, Form, and Imitation, it produces caricatures ; with Combativeness, Destructiveness, and Secretiveness, it gives poignancy to satire. From its combination with Comparison result puns.

Its use is to produce glee, mirth and laughter. Its abuse leads to levity, satire, and untimely wit and mirth. When deficient the mind has a serious cast. A laughing countenance is its natural language.

The organ is situated at the upper and lateral part of the forehead, immediately before that of Ideality. It is large in Voltaire and Sterne, and small in New Hollanders.

XXI. — IMITATION.

This faculty gives the tendency of imitating in general, and is therefore indispensably necessary to painters, sculptors, engravers, buffoons, mimics and actors, and to artists of every description. It is equally active in poets, novelists, and musicians.

Its use is, improvement by imitating the manners and good actions of others, and by giving expression in the arts. When abused it leads to mimicry, buffoonery and aping. If deficient there is a want of expression, and often of improvement.

The organ is situated on each side of the organ of Benevolence, and gives, when large, a rounded or flat appearance to the top of the front part of the head. It is large in Canova, and Garrick, and small in the New Hollanders.

CHAPTER XI.

ORDER II.—INTELLECTUAL FACULTIES.

THE intellectual faculties make man and animals acquainted with their own internal

sensations, and the existence of the physical qualities and relations of external objects. They are divided into three genera: 1, the *External Senses*, by which beings are enabled to communicate with each other and the external world; 2, the *Perceptive Faculties*, divided into two sub-genera, the first of which perceives the existence and physical qualities of objects, and the second, their relations; 3, the *Reflective Faculties*, which produce ideas of reflection, and reflect on the operations of all the other faculties.

SECTION I. — GENUS I. — EXTERNAL SENSES.

It is through the medium of these, that men and animals are allowed to communicate with other beings, and that a determinate consciousness of the external world is attained.

As is also the case with all the faculties, the External senses receive a single impression with a single consciousness, although they each possess two organs. Their functions are necessarily divided into mediate and immediate; the first of which cannot be explained by their instrumentality alone, and the latter are so immediately connected with those of

the internal faculties, that it is very difficult to point them out.

All these senses are not possessed by every species of animal, different senses being wanting to different animals, nor do all animals possess them to a like degree.

VOLUNTARY MOTION.

It is satisfactorily ascertained that voluntary motion and sensation are produced by different nervous fibres, however intimately these instruments may be in connexion. This has been demonstrated beyond a doubt by the experiments of Sir Charles Bell, in which he showed that the spinal cord consists of two pairs of medullary columns, intimately bound together, but possessing different functions; with the anterior of these are connected the nerves of motion and with the posterior those of sensation. The upper portion of the spinal cord has another pair of columns, situated between the other pairs, with which are connected the nerves of respiration.

FEELING OR TOUCH.

The immediate functions of this sense are

the sensations of pain and pleasure, of the variations of heat, coldness, dryness, and moisture. Its other functions are mediate, the impression which it receives being perceived by the internal faculties. Existing over the whole external surface of the body, and throughout the intestinal canal, it is the most extensive of the external senses.

TASTE.

The immediate object of this sense is to produce only the sensation of taste, by the perception of savors. This it does by the gustatory, nerves which are distributed to the membranes lining the palate, pharynx, and tongue. Nutrition is assisted by it mediately.

SMELL.

Feeling and taste require the immediate presence of their objects, without distance. The sense of smell can act immediately from a distance upon things, by means of detached odorous particles. This sense communicates with objects through the olfactory nerves. The immediate function of this sense is for

the sensation of smell by means of odorous particles emanating from external bodies, and has no reference whatever to the object from which the odor is derived. All its other functions are mediate.

HEARING.

Hearing also makes beings acquainted with remote objects, and unlike the preceding admits a medium, the air.

The acoustic or auditory nerves receiving the vibrations of the air transmit them to form the sensation of sound. The immediate functions of this sense are confined to the sensation of sound. Its remaining functions are mediate.

SIGHT.

Sight likewise brings men and animals in communication with distant objects by a medium, light. Its only immediate function is the sensation of light, the other functions being mediate. The media are light, the eyes and optic nerves.

SECTION II.—GENUS II.—PERCEPTIVE FACULTIES.

The perceptive faculties procure knowledge of external objects by perceiving their existence and physical qualities, and their relations.

1. *Intellectual faculties, which perceive the existence of external objects and their physical qualities.*

XXII. — INDIVIDUALITY.

Individuality makes us acquainted with objects as mere existences, without any regard to the use to which they may be put. It prompts to observation and thence to a preference of those sciences which consist in the study and knowledge of specific objects, and is therefore indispensably necessary to naturalists. Possessed by authors it leads to personification ; and, when aided by Comparison, produces metaphors. It is this faculty which acquires that kind of knowledge which corresponds to the substantives of artificial language.

The organ of individuality is situated behind the root of the nose, and is developed at the lower part of the forehead between the

eyebrows. It is large in Spurzheim, J. Horne Tooke and Scott, and small in Haydon.

XXIII. — CONFIGURATION.

This faculty acquires a knowledge of the form or configuration of objects, and is therefore largely possessed by all distinguished artists.

The organ is situated between the eyes, and its developement is made obvious by the breadth of this part of the forehead. When very large it pushes the balls of the eyes outwards and towards the external angles of their orbits. It is large in Canova and Karner Vaider, and small in Ann Ormerod.

XXIV. — SIZE.

All the dimensions of size are perceived by the use of this faculty.

The organ of size is shown developed at the inner angle of the eye immediately above that of Configuration and on both sides of that of Individuality. It is large in Canova, and small in Ann Ormerod.

XXV. — WEIGHT.

There is a special faculty which takes cog-

nizance of weight and resistance. Its organ is shown over both eyebrows next to and outwards of that of Size. It is large in Sir Isaac Newton, and small in Ormerod.

XXVI. — COLORING.

This faculty perceives colors, and judges of their relations and harmonious or discordant arrangements, and is therefore necessary to successful painters.

The organ is observed developed above the middle of the eyebrow. When it is large that portion of the forehead is very prominent or much arched, and the middle of the upper eyelid has a peculiar fullness. It is large in Haydon and small in James Milne.

2. *Intellectual faculties which perceive the relations of external objects.*

XXVII. — LOCALITY.

It is by means of this faculty that man perceives and remembers the situation and location of objects ; therefore it forms one of the chief elements of the talent some possess for geography, astronomy, topography, geometry, &c. Authors who have a large endow-

ment are remarkable for their descriptions of scenery. It is generally a powerful faculty of travellers. The organ of locality is situated above that of Size. Observations on this organ are sometimes rendered difficult on account of the occurrence of the frontal sinuses. If, however, there be a very large developement of the skull in that place, there will be a large developement of the organ, and *vice versa*. It is large in Newton and Mungo Park, and generally small in females.

XXVIII. — ORDER.

This faculty gives method, arrangement and order in general. Philosophical arrangement does not depend upon it, but upon the reflective faculties.

The organ is developed at the external angle of the eye, between those of Coloring and Calculation. It is large in Haydn and small in Ormerod.

XXIX. — CALCULATION.

Calculation gives the conception of number and its relations, and embraces whatever concerns number, unity and plurality. Hence

it is an element in the talent for arithmetic and algebra. The organ is developed at the external angle of the eye, behind that of Order. It is large in Newton and Zerah Colburn; and small in N. Hollanders.

XXX.—EVENTUALITY.

By the use of this faculty man acquires a knowledge of events or occurrences. It is very useful to historians, as most of their knowledge depends upon it. This faculty above all others desires to know by experience, therefore it excites the organs of all the other faculties to action. Children who possess it energetically are always the most forward.

The organ is situated above that of Individuality, and is large in J. Horne Tooke, and small in N. Hollanders.

XXXI.—TIME.

It is by means of this faculty that the mind perceives the succession, or simultaneous occurrence and duration of events. Without it the science of music would exist very imperfectly, no two persons being able to play or sing in concert. In the science of

music it measures the duration of tones ; in the study of history it belongs to chronology in reference to duration and succession of events.

The organ of this faculty is shown developed immediately above the organs of Weight and Coloring, and between those of Eventuality and Tune. It is large in Von Weber, and Newkomm, and small in Ann Ormerod.

XXXII—TUNE.

In the same manner that Coloring is related to the eye the faculty of Tune or melody is to the ear. The ear cannot recollect tones, but is only a medium to convey them to the mind, which, by means of the faculty of tune takes cognizance of them, being pleasantly or unpleasantly affected by them as they may be harmonious or discordant.

The organ of Tune is developed over the organs of Order and Calculation, at the temporal ridge of the frontal bone. It has various appearances according to the form of the convolutions of the brain in which it is situated, for instance, it has a *pyramidal* form in Haydn and Von Weber, while in Handel it

shows itself by a rounded and prominent appearance of the forehead. In Ormerod it is very deficient.

XXXIII. — LANGUAGE.

It was this faculty that first drew the attention of Gall to the study of Phrenology. Its object is to acquire artificial languages, and has the same relation to artificial signs that Tune has to tones, and Coloring to colors.

The organ is situated in the anterior lobe of the brain upon the orbitar plate of the frontal bone. Its developement is shown externally by a fulness of the under eyelid produced by the pressure of the organ upon the orbitar plate. It is large in Voltaire and J. Horne Tooke, and small in Frazer.

SECTION III.—GENIUS III.—REFLECTIVE FACULTIES.

The reflective faculties form what is usually called reason. They take cognizance of the doings of the other faculties and assist to guide them in their operations.

XXXIV. — COMPARISON.

This faculty gives a power of perceiving analogies, similitudes, resemblances and dif-

ferences. It is not confined to a comparison of its own peculiar notions like the perceptive faculties, but may compare and point out the resemblances and differences of the functions of all the mental powers. For instance, it can compare a tone with a form or color, and demonology proves that even some minds can see resemblances between forms and shadows, and things exceedingly dissimilar.

The organ of comparison is developed at the upper and middle part of the forehead between the organs of Eventuality and Benevolence. It is large in Pitt, Curran, and Hindoos, and small in Caribs and Idiots.

XXXV. — CAUSALITY.

Causality gives an idea of the connection between causes and effects, and leads us to the belief that every event has a cause. It leads us to believe in a first cause and consequently in a Supreme power or being.

Its organ is situated on each side of that of Comparison and is large in Bacon, Franklin and Kant, and small in Caribs, New Hollanders and Idiots.

CHAPTER XII.

COMBINATIONS IN SIZE AND ACTIVITY OF THE
ORGANS OF THE FACULTIES.

All the faculties are good in themselves ; it is only the excess of activity, and bad combinations which produce abuses, and not the smallness of the organs. Every individual, excepting idiots, possesses all the organs, but these are differently combined in activity and relative size, forming every shade of character, from the most virtuous to the most vicious. There are three rules for estimating the effects of these differences in relative size and activity ; — viz. *First*, every faculty desires gratification with a degree of energy proportionate to the size and activity of its organ ; therefore, those faculties whose organs are largest in an individual will be habitually indulged. *Second*, as the mind is composed of animal, moral, and intellectual faculties, it may happen that several large animal organs may be combined with some highly developed moral or intellectual organs ; in such a case,

the lower powers will be directed by the higher, and a course of conduct will be chosen that will gratify the whole. *Third*, when all the organs are equally developed the character of the individual will be made up of a series of actions contradictory and seemingly inexplicable, he being a creature of circumstances and easily influenced by any kind of companions.

The following are the combinations which occur in several marked characters.

AMIABLENESS. Benevolence, reverence, conscientiousness, approbateness and adhesiveness, increased by individuality, eventuality, tune, imitation, amateness, and by the deficiency of combativeness, destructiveness and self-esteem.

AUDACIOUSNESS. Combateness, destructiveness, self-esteem, firmness, hope and ideality, increased by deficient cautiousness, conscientiousness, reverence and benevolence.

AUSTERENESS. Firmness, conscientiousness, self-esteem, cautiousness, comparison, causality, destructiveness, combateness, ideality, with defective imitation, mirthfulness and benevolence.

AVARICIOUSNESS. Acquisitiveness, cautiousness, order, secretiveness, and moderate benevolence and conscientiousness.

BRUTALITY. Combativeness, destructiveness, self-esteem, firmness, acquisitiveness, with deficient benevolence, reverence, conscientiousness, approbateness and adhesiveness.

CAPRICIOUSNESS. Self-esteem, firmness, approbateness, ideality, with defective conscientiousness, benevolence, cautiousness and reflection, increased by acquisitiveness and combativeness.

COMICALNESS. Mirthfulness and imitation, increased by tune, hope, eventuality and small cautiousness and comparison combined with inferior or superior feelings.

CREDULOUSNESS. Marvellousness, hope, reverence, conscientiousness, eventuality, with moderate cautiousness, approbateness and reflection, increased by self-esteem and acquisitiveness.

DIFFIDENCE. Secretiveness and cautiousness, with less combativeness, self-esteem, and firmness, increased by the reflective faculties.

DISCREETNESS. Cautiousness, conscientiousness,

tiousness, benevolence, reverence and order, with little self-esteem and combativeness.

DISPUTATIOUSNESS. Firmness, self-esteem, combativeness, approbateness, increased by acquisitiveness, secretiveness and less cautiousness and reverence.

DUPLICITY. Secretiveness, acquisitiveness, with deficient conscientiousness, reverence, self-esteem and firmness.

FLATTERY. Approbateness, secretiveness, acquisitiveness, increased by less conscientiousness, self-esteem, cautiousness, firmness and causality.

IMPERTINENCE. Combativeness, destructiveness, self-esteem, firmness, acquisitiveness, with deficient cautiousness, approbateness, conscientiousness and reverence.

INDUSTRIOUSNESS. Acquisitiveness, secretiveness, approbateness, firmness, cautiousness and order, and the perceptive faculties in general, with a general activity of all the powers.

MELANCHOLY. Cautiousness, firmness, self-esteem, secretiveness, conscientiousness and the reflective faculties, with deficient hope, combativeness, mirthfulness and imitation.

MODESTY. Cautiousness, approbateness, reflection, benevolence, reverence, conscientiousness, without much self-esteem and combativeness,

SUPERSTITIOUSNESS. Marvellousness, reverence, hope, ideality, with not so much reflection.

TYRANNY. Self-esteem, firmness, approbateness, destructiveness, secretiveness, acquisitiveness, with little conscientiousness, reverence and benevolence.

VINDICTIVENESS. Combativeness, destructiveness, self-esteem, firmness, acquisitiveness and approbateness, heightened by a deficiency of benevolence, conscientiousness and reverence.

CHAPTER XIII.

PHRENOLOGICAL EXPRESSIONS.

As very little attention has been given to the expressions used in Phrenology, and as many of those used to designate the different *modes of activity* of the faculties have been

wrongly applied as belonging to special faculties, an explanation of a few of them, according to the fundamental faculties, in the form of a vocabulary, has been deemed a proper conclusion to this work.

ADMIRATION.—An affection of Marvellousness; an emotion excited by something novel, rare, great or excellent.

ADORATION.—The effect of Veneration; external homage, accompanied with the highest reverence.

AFFECTATION.—A result from Approbativeness, and small Reflection, increased by Secretiveness and Ideality; an attempt to assume or exhibit what is not natural or real.

AFFECTION.—Modes of being affected of the faculties; a state of the mind between *disposition* and *passion*.

AMBITION.—An effect of active Approbativeness; a desire of preferment or honor.

APATHY.—Inactivity of the faculties; an utter privation of passion.

ASSOCIATION.—Union or connection; an effect of the mutual influence of the fundamental faculties. One faculty being active, excites another, or several, and the phenomenon is association; this occurs among the intellectual faculties, and also among all the fundamental faculties.

ATTENTION.—The due application of the mind to objects presented to its contemplation. The effect of the intellectual faculties acting either from their proper force, or from being excited by external impressions, or by one or more of the faculties.

ATTRITION.—Grief for sin, arising from fear of punish-

ment; a disagreeable affection of Conscientiousness, originating in the faculties of Veneration, Benevolence, and Cautiousness.

BELIEF.—An assent of the mind to the truth of a declaration, proposition or alledged fact, on the ground of evidence, distinct from personal knowledge; the faculty Hope, disposes to belief in general.

BENEVOLENCE.—The love of mankind with a desire to promote happiness; a fundamental faculty.

CHARMING.—Pleasing in the highest degree; the greatest degree of satisfaction of every faculty.

COMPASSION.—A sensation of sorrow, excited by the distress or misfortunes of another; an unpleasant effect of Benevolence.

CONCEPTION, or IMAGINATION.—A mental act or combination of acts by which an idea or notion is formed of an absent object of perception, or a sensation formerly felt; a quantitative mode of activity of the fundamental faculties, capable of combining previous perceptions, and of producing new compositions.

CONSCIENCE.—That which decides within ourselves on the lawfulness or unlawfulness of our own actions and affections, and instantly approves or condemns them: a mode of action of the faculty of Conscientiousness.

CONTEMPT.—A strong expression of hatred of what is mean or deemed vile; the faculty of Self-esteem disagreeably affected by various causes.

CONTENTMENT.—Satisfaction without further desire; a degree of satisfaction of all the faculties.

CONTRITION.—Genuine penitence, with a deep sense of ingratitude in the sinner and sincere resolution to reform; an unpleasant affection of conscientiousness arising from the activity of Benevolence, Reverence, and Marvelousness.

COURAGE.—An affection of Combativeness.

CRUELTY.—A barbarous disposition which is gratified in giving unnecessary pain or distress to others; it arises from Destructiveness, with defective Benevolence and Conscientiousness.

CUPIDITY.—Inordinate desire of possessing; a very high degree of action of Acquisitiveness.

DESIRE.—A wish to enjoy; a degree of action of all the faculties.

DESPAIR.—A destitution of hope or expectation; an unpleasant affection of Cautiousness without Hope.

DIFFIDENCE.—Want of self-confidence; an affection of Cautiousness combined with Secretiveness, Intellect and deficient Hope.

DOUBT.—A fluctuation of mind arising from defect of knowledge or evidence; this arises from an action of Cautiousness with the Intellect.

DUTY.—That which a man is bound, by any natural, moral or legal obligation to do; an action of Conscientiousness.

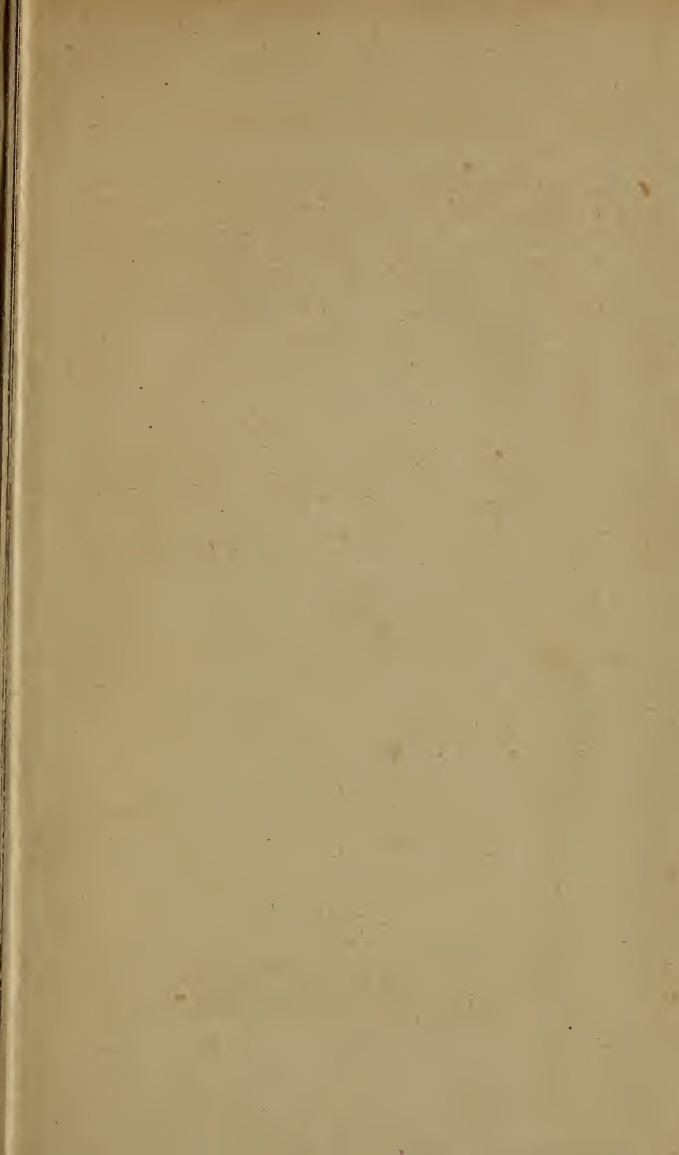
ECSTASY.—Excessive joy; an affection produced by the action of Marvellousness, Ideality, Mirthfulness and Hope.

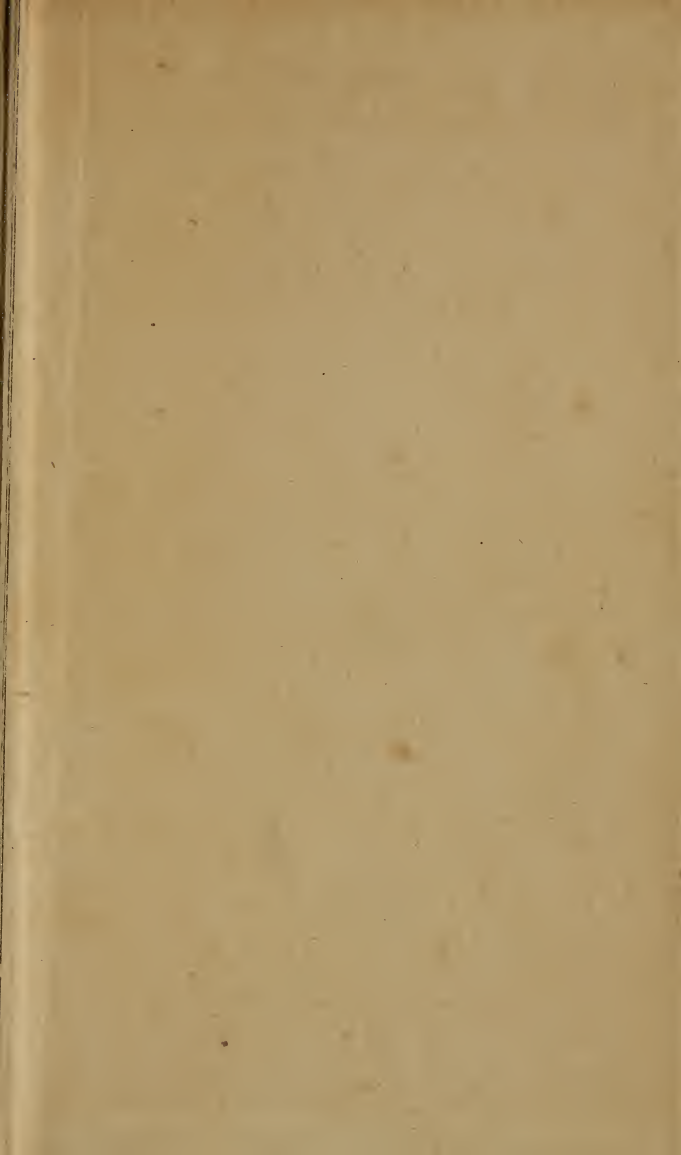
ENVY.—Uneasiness, mortification or discontent, at the sight of superior excellence, reputation or happiness, enjoyed by another; an effect of Self-esteem, Secretiveness, Destructiveness, with defective Benevolence.

FAITH.—Religious belief; an effect of Reverence, Hope and Marvellousness.

FRIGHT.—Sudden and violent fear; a strong affection of Cautiousness with inactive Combativeness.

FURY.—Violent anger; the highest degree of action of Combativeness and Destructiveness.





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